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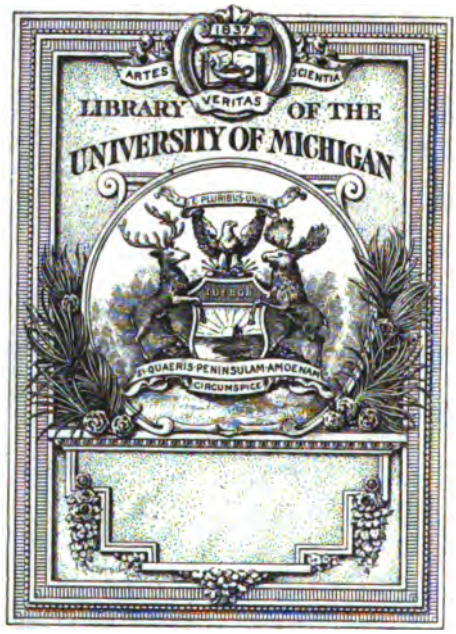
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COMMERCIAL RELATIONS OF THE UNITED STATES.

REPORTS

FROM THE

CONSULS OF THE UNITED STATES

ON THE

COMMERCE, MANUFACTURES, ETC.,

OF THEIR

CONSULAR DISTRICTS.

No. 15.—January, 1882.

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CONTENTS.

CONTINENT OF AFRICA.

Page.

Culture of jute, linseed, cotton, &c., in Egypt:
(Report by Consul-General Wolf) 35
Decline in the Export of Rubber at Zanzibar:
(Report by Consul Bachelder) 107

CONTINENT OF AMERICA.

Our Trade with Ontario:
(Report by Consul Dill) 7
Salmon and Salmon Canning in British Columbia:
(Report by Consul Francis) 27
Navigation and Commerce of Bahia, Brazil:
(Report by Consul Prindle) 33
Trade and Resources of Nova Scotia:
(Report by Consul Hobart) 72
Coffee and Coffee Trade of Hayti:
(Report by Consul-General Langston) 126
Repeal of the Invoice Tax of Hayti:
(Report by Consul-General Langston) 162

CONTINENT OF ASIA.

Exports and Imports at Ning-po, China:
(Report by Consul Stevens) 106

AUSTRALASIA.

Vine Culture and Products in Australia:
(Report by Consul-General Spencer) 56
New Zealand Manganese:
(Report by Consul Griffin) 64
New Zealand Tariff:
(Report by Consul Griffin) 66

CONTINENT OF EUROPE.

Trade of Leith, Scotland, with the United States:
(Report by Consul Leonard) 1
English Financial Predominance:
(Report by Consul Brooks) 4
American Canned Meats and the German Tariff:
(Report by Consul Schoenle) 6
Wages of English Factory Operatives:
(Report by Consul Shaw) 12
American Meats in England:
(Report by Consul Shaw) 13
Technical Education:
(Report by Consul Shaw) 14

Page.

Enlargement of American Trade Abroad:
(Report by Consul Shaw) 15
Adulteration of American Cotton:
(Report by Consul Shaw) 16
Manufacture of Swiss Cheese:
(Report by Consul Adams) 29
Aniline Chemistry:
(Report by Consul Mason) 43
Dairy Exhibition at Ghent:
(Report by Consul Wilson) 46
Improved Process in Wine Manufacture:
(Report by Consul Potter) 53
Viticultural Exhibition at Bordeaux:
(Report by Consul Roosevelt) 74
Manufacture of Raisin Wine:
(Report by Consul Taylor) 78
Exports and Imports of Aix-la-Chapelle:
(Report by Consul Dubois) 80
Trade of Chemnitz, Saxony:
(Report by Consul Griggs) 83
Emigration from Hamburg:
(Report by Consul Bailey) 84
Exports of Sonneberg:
(Report by Consul Wharton) 88
Cultivation of the Sugar Beet in Germany:
(Report by Commercial Agent Warner) 90
Trade and Industries of Breslau:
(Report by Consul Dithmar) 94
Railway System and Prospects in Thuringia:
(Report by Consul Wharton) 97
Trade and Industries of Würtemberg:
(Report by Consul Catlin) 99
Russia's Manufactures in 1879:
(Report by Consul-General Stanton) 109
Russia's Sanitary Statistics for 1879:
(Report by Consul-General Stanton) 120
Russia's Internal Navigation for 1878 and 1879:
(Report by Consul-General Stanton) 121
Soliciting Emigration from Europe:
(Report by Consul Dubois) 123
German Petroleum Discoveries:
(Report by Consul Schoenle) 125
New French Tariff:
(Report by Consul-General Walker) 128

NOTES.

Correction in Cotton-Goods Trade of the World 164
The Crops of Palestine 164
Steamship Line between Trieste and New York 164
Olive-oil Trade of Bordeaux 165
Trade at Iquique, Peru 165
The Haytien Industrial Exhibition 165
American Consular Reports 166
Emigration from Canada to the United States 167

CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

JANUARY, 1882.

TRADE OF LEITH, SCOTLAND, WITH THE UNITED STATES.

REPORT BY CONSUL LEONARD.

IMPORTS.

The importation of American provisions to this port during the past year has been on the whole a full average. The summer season of 1880 closed with heavy stocks, mainly of inferior quality, and a consequently dull demand, but with the late spring an improved demand set in. Stocks were low, so that the prices were rapidly forced above the average of late years. Demand for some time was quite in excess of supply, as packers had been making very little dry salt meat suitable for the Scotch market. The consumption of shoulders has been under an average; the demand has never recovered from the salt and inferior shipments of 1879–'80.

Present feeling is, that the future is very much in the hands of parties who have all along more or less controlled the market, but that prices are not likely to be much lower before the close of the year. The cure of all meats has been good in contrast to the summer of 1880. Demand is steadily increasing with the improving quality, and in the coming season, though the high prices may tend to check consumption, there must be a steady sale, as this country depends almost entirely on America for its supply of hog products.

A good business has been done here this season in American butter, principally, however, from the month of June, when prices opened comparatively moderate; but as values have now advanced so considerably in New York, the demand lately has become much less.

The arrivals are about one-half less than at the corresponding time last year, but as much is said to be stored in New York and Canada, larger arrivals are generally expected. Choice butter is imported on better terms from the continent of Europe, while the best descriptions of butterine are preferred to inferior Western or ladle-packed butter. The market for butter suffered by the excessive stocks, chiefly of secondary Western and ladle-packed, great part of which went to grease.

All goods have been arriving in fair condition without refrigerator on ocean voyage. Experience serves to show that overcooling destroys the keeping qualities of butter.

The quality of creamery butter maintains the improvement of last year, and has given general satisfaction as to its keeping qualities.

As New York and Western dairy butter varies so much, and is frequently oversalted, it does not receive the same attention.

The tendency of most articles of good quality in the provision trade is certainly towards increased firmness in prices, choice bacon, butter, and other goods being fully higher. There are a few parcels of pretty good American packages on hand, and fair prices are got for these.

Secondary kinds continue dull. Cheese remains unaltered in value, with little doing. American slow of sale. Scotch also quiet and few selling.

I am recommended to draw attention to the importance of getting all provisions as rapidly as possible from shipping points to the seaboard, a few days more in the cars often making the difference between goods arriving in good order and depreciated in quality ten to twenty-five per cent.

As affording a fair estimate of the work being accomplished by one company in Leith in developing American trade and conveying hither supplies of wheat and other grain, for which this country is so dependent on America, it is worthy of remark that during the year ending 30th September, 1881, thirty-one steamers of the Arrow line of steamships, belonging to Messrs. Hugh Blaik & Co., arrived here, carrying the following principal imports: 853,334 bushels wheat, 265,302 bushels corn, 16,986 bushels pease, 229,678 sacks flour, 5,169 tons oil cake; also a large number of cases of canned meats.

EXPORTS.

The principal exports from this port to America are printed books, and the total declared value of these for the year ending 30th September, 1881, is greater than for any previous year on record. The following table, exhibiting the declared values of a few of the leading articles or classes of exports for the past seven years, sets forth the large and continuous increase in the values of book shipments during that period, and, coupled with the results hereinafter given, it may be held to afford a fair illustration of the progress made in the export trade generally of this consular district with the United States:

Declared exports for the year ending 30th September—	Books and other printed matter.	Printing materials.	Gelatine.	Paper stock.	Ale.	Medicinal preparations.
1875	$117,211 46	$37,798 89	$62,333 36	$49,331 28	$125,485 57	$4,362 53
1876	61,788 92	16,445 81	66,583 21	36,481 37	88,982 03	3,260 24
1877	74,991 65	26,860 27	63,105 87	31,579 52	58,362 36	3,121 89
1878	105,248 84	22,029 70	68,099 28	20,251 55	36,492 94	3,517 83
1879	146,263 87	8,251 92	79,495 96	12,061 36	47,059 97	9,199 25
1880	185,347 21	9,539 91	83,451 57	63,659 11	49,146 13	26,447 61
1881	220,882 16	8,150 99	91,498 47	81,027 12	53,605 70	37,921 98

With reference to the exports of printed matter (other than books) it may be stated that maps form the chief item, and the values thereof

have gradually advanced from $2,174.74 in 1876, to $12,681.55 in 1881; further, in regard to the values of printed books alone, exported since 1876, the increase has been as follows:

1877 over previous year	$12,639 11
1878 over previous year	27,365 72
1879 over previous year	38,332 03
1880 over previous year	37,129 44
1881 over previous year	32,133 67

The yearly increase was therefore at its highest in 1879, covering a period of unusual depression in nearly all other lines of business, and it has diminished in 1880, and to a greater extent in 1881. The circumstance is noteworthy also that the amount of increase in the year 1881 represents little more than the aggregate values of large consignments by Messrs. Thomas Nelson & Sons, an eminent publishing firm in Edinburgh, of the revised edition of the New Testament on its publication.

A considerable item likewise in the exports has been printing materials, consisting mainly of printing type, but the values of these in any year of the series given are much below the values of books exported.

Shipments of gelatine and paper stock have greatly increased, the amount of each for year ending 30th September being, respectively, almost one-third and one-half more than in 1875.

Ale used to be largely exported, but during recent years the manufacture of lager-beer in the United States has materially lessened the demand for ale from this consular district. The declared value of ale shipped to the United States from this district in 1875 was more than double the amount this year. But although the demand had greatly declined from 1875 to 1878, as shown in the foregoing table, it has risen steadily since 1878 till now, and the declared values for year ending 30th September, 1881, have been about one-half more than they were during 1878.

Exports of biscuit have decreased; their value for the past year being only about one-third of the amount in 1875.

Medicinal preparations, chiefly morphia, are exported to the United States to a greater extent this year than formerly; the total amount in 1875 having been only $4,362.53, and this year it has reached $37,921.98.

The shipments of coal from this coast to the United States have again fallen off, especially in cannel coal, which is less than half the quantity shipped last year. The cause of this is reported to be the low railroad rates from the coal-centers to the coast, which enabled the gas companies to buy native coal cheaper than Scotch, despite the lower prices here. In 1880 the average price of Scotch cannel coal was $9, whereas this year it is only $7. A few cargoes of Scotch steam coal have been shipped, at an average price of $4. This price leaves only about $1 freight to the ship-owner.

Shippers here maintain that a much larger business could be done if the duty of 75 cents were reduced.

Pig-iron was shipped from Leith to the United States in 1880 to the extent of $33,699.66; but for the year ending last September the amount has been only $3,946.77.

Nevertheless, the results of these two years in this article of export may be accepted as further showing the improvement of business here since the period of general depression in 1877 and 1878.

There were no shipments of iron from this district to the United States during the years 1875 to 1879, inclusive. Glasgow and other ports on the west coast of Great Britain engross most of such trade.

The exports in textile manufactures and materials have been increasing,

the aggregate amount being $5,712.30 in 1879, $12,907.94 in 1880, and $21,510.50 1881.

In conclusion, and as a further illustration of the progress made in the export trade to the United States from this district, the following statement is submitted, showing the total amount of declared exports and the increase made each year since 1879:

	Total declared exports.	Increase.
For year ending 30th September, 1879	$368, 939 12	
For year ending 30th September, 1880	548, 321 12	$179, 382 00
For year ending 30th September, 1881	587, 578 90	39, 257 78

J. A. LEONARD, *Consul.*

UNITED STATES CONSULATE,
Leith, Scotland, November 4, 1881.

ENGLISH FINANCIAL PREDOMINANCE.

REPORT BY CONSUL BROOKS, OF CORK.

It is a fact which strikes with great force any observant American traveler on this side of the world that the financial systems by which the commerce of the period is controlled are to a great extent centered in London and the Bank of England. The influence of this controlling power is, as a matter of course, exerted for the benefit of English capitalists. The result is that ninety-nine one-hundredths of the commercial transactions between the United States and Europe pay more or less tribute in the way of discounts and exchanges to those capitalists. In fact, when business men or pleasure-seekers leave American shores they also leave American monetary systems behind them, and wherever they may go—with too few exceptions—they at once calculate rates of exchange upon the basis of London or English markets. So true is this, that freight rates paid to American ships are calculated upon the English system of pounds, shillings, and pence, and the predominance of that method is continually asserted in all the financial affairs of our shipping interests.

There is, perhaps, no reason why this should be as it is, for the balance of trade, as is well known, is now and has been for several years in favor of the United States, and the natural assumption would be that the control of methods should reside with the principal power. But the truth is, that, with the exception of a few leading banking-houses in London and Paris, there are no representative financial agencies from the United States on this side of the Atlantic. These few houses do a very large business, but I venture the remark that it is of a different kind from that done by similar houses of English backing in otner parts of the world. So far as I know, their business is something in the nature of sporadic international brokerage, and cannot be described as a part of any recognized system such as is maintained by the English. And the moiety of the profit they make is all that is rescued out of the grand aggregate of international transactions for the benefit of American pockets. The rest goes into English coffers.

It is admitted that unforeseen and almost impossible disaster can

alone interrupt in the future the existing condition of trade between the two countries. There is no reason, therefore, why Great Britain should not in that future take the secondary place in all financial exchanges, as she necessarily does, and will continue to do, in all the exchanges of commerce. And, further, there is no reason why American systems should not predominate all over the world wherever the predominance of American products and manufactures is recognized. In other words, there is no reason why, in view of the fact that the United States has become first and foremost in supplying the necessaries of life to the old world, that Americans should not as well reap the benefits and profits incident to that traffic.

Of course there could be no consideration of this subject, however casual, without taking into account the almost utter absence of American shipping engaged in ocean commerce; but, independent of all that, I respectfully suggest that the field is open and inviting for the inauguration or extension of American enterprise in the line of international banking.

The credit of the United States government and of the people of the United States was never better in foreign countries than it is at this moment. In short, the civilized world stands amazed at the prodigious development of resources as exhibited in the career of the American nation during the past five or six years. In consequence of this, and of the constantly increasing intrusion of American products and manufactures upon foreign markets, foreigners generally concede to the United States the deserved position of being the foremost nation of all civilization; but, at the same time, it is reserved to England to be able to boast that she is the great and overshadowing financial power. It is not true that England furnishes the money or capital, and that the United States supplies the articles of commerce, but it is true that the latter country does furnish both, and that the former collects toll, as it were, upon both, by reason of the aggressive determination of her capitalists to continue their aforetime rights as the purse-bearers of the world. This statement is borne out by the fact that American commission merchants or shipping agents almost invariably control cargoes of grain sent to these markets until, through their correspondents on this side, the final sales are effected. Besides this, the mines of the United States are developing wealth with such rapidity that sooner or later we will become the richest nation extant—the richest I mean as regards the possession of bullion—as we are already the richest as regards ability to produce the necessaries of life. But the present showing would indicate that England is really the capitalist, and that the United States is the subsidiary factor in their conjoint commerce, merely and simply supplying the commodities of traffic.

The only possible way, in my humble judgment, to establish a proper or legitimate equilibrium, or to readjust these matters so that Americans may be able to realize all the advantages naturally belonging to them, is:

First. By creating a system of financial exchanges controlled by Americans and hinged upon the condition of the American market; and,

Second. As has been repeatedly suggested, by a revival of American ocean shipping.

A system of financial exchange of this kind would require the establishment in all the prominent sea-ports of the world of a chain of agencies, each having direct connection with a central management in New York, Boston, Philadelphia, or San Francisco. Such a system would eventually supplant, so far as the United States is concerned, the rami-

fications of English finances which now actually compel the commerce of the globe to go sooner or later to London for accommodation.

It is manifestly impossible that the profits of this scheme could be estimated in advance, but it is equally evident that it would yield profit for the reason that existing methods are paying those who enjoy a monopoly of them. And it is also evident that such agencies as are herein contemplated would be capable of taking charge of American ships, discounting their bills for supplies or repairs, or making advances for wages, &c., and of defraying all expenses connected with the discharge of cargoes or reloading. This item alone would aggregate many thousands of dollars annually and would be contributed to, as matters now stand, by other than American ships, for American charterers of foreign ships, in Baltimore for example, or in Portland, Oreg., would naturally consign them to American agencies all over the world.

It strikes me that the National Board of Trade, or some kindred organization capable of commanding sufficient backing from the banks might take the initiative in this matter.

At any rate for the benefit of the people of the United States as well as for the credit and reputation of the country, to relieve the people from paying tribute to English brokers, and to enable the country to assert its legitimate pre-eminence in the world's commerce, I sincerely hope the experiment may be tried.

E. P. BROOKS,
Consul.

UNITED STATES CONSULATE,
Cork, Ireland, October 27, 1881.

AMERICAN CANNED MEATS AND THE GERMAN TARIFF.

REPORT BY CONSUL SCHOENLE, OF BARMEN.

There is much ingenuity in the persistent warfare waged in most of the European countries against American provisions, especially salted pork, lard, and canned meats, and these attacks still continue as bitter and persistent as ever. The contest is, at intervals, taken up and fiercely carried on under the pretense of protecting the sanitary condition of the people, and while the masses have been systematically frightened into the trichina scare another method has been resorted to in Germany for the purpose of hampering the importation of canned meats, if not putting a regular embargo on them. The reckless reports circulated lately in several German prints that the canned meats are prepared in the United States from the flesh of diseased animals, together with other vindictive diatribes, setting forth the danger of using these preserved provisions did not cause any great falling off in the consumption of the same. Their superiority over other conserved meats has been recognized and appreciated, and they have grown so rapidly in popular favor that they are now sold in almost every retail grocery in the principal German cities. In order, however, to drive these articles of food out of market and render their importation impossible, recourse has been had in Germany to an extraordinary custom-contrivance, which has hardly a parallel in the history of tariff laws.

Since the adoption of the new German tariff, about two years ago, canned beef, tongues, meats, soups, and minced meats, have been classified under the head of "slaughtered and prepared meats," and are

subject to a duty of 12 marks ($2.86) per 100 kilos (220 pounds avoirdupois), a duty which represents about 15 per cent. of the value of the merchandise.

One day, however, a custom-house official in Flensburg made a startling discovery. He found that labels were affixed to these tin boxes, and consequently the cases are, technically, in connection and coherence with another material. Inasmuch, according to instructions, as the packing thus classified is liable to the duties on the whole object, such goods, according to the official register, came under another heading in the tariff, and we find corned beef and similar articles classified by this custom house wiseacre under the head of *iron wares*, such as knives, scissors, hair-pins, &c., and subjected to a duty of 24 marks ($5.72) per 100 kilos, just doubling the amount to be paid. The custom-house director for Schleswig-Holstein, to whom the interested party applied for redress, confirmed the decision of the subordinate officer, and the minister of finance at Berlin sustained it, and issued instructions (June 30, 1881,) to all the head custom-houses to be guided by said decision, so that henceforth duties on corned beef, &c., in labeled boxes are to be collected "under the classification of knives, scissors, hair-pins," &c. Thus the contents of the boxes are not treated as dutiable, but simply the labeled boxes themselves. And some dealers in imported meats at Hamburg and Leipsic, who were not able to comprehend the profundity of this ingenions interpretation of the tariff laws, submitted a memorandum in reference to the case to the Bundesrath, the last resort and final arbiter in custom affairs. But this august body has not yet rendered decision on the subject, and the Imperial chief custom-house, without waiting for such decision, has made arrangements to proceed to the collection of the after-payment of duties on the articles above referred to, so that by this operation the retail dealers are simply the losers of this additional duty of 15 per cent., as the contents of these boxes had been eaten up long ago. It is obvious that this arbitrary and unjustifiable increase of import duties on canned meats must work as a prohibitive clause, and such an interpretation of the tariff laws is in direct violation of international comity, and unjust in its application. As a result of such proceedings, the question may probably arise for consideration and legislation of the American government, whether it be not time to devise retaliatory measures against any oppressive and unfair ruling, prejudicial to the interests of American commerce with Germany.

WOLFGANG SCHOENLE,
Consul.

UNITED STATES CONSULATE,
Barmen, November 24, 1881.

OUR TRADE WITH ONTARIO.

REPORT BY CONSUL DILL, OF FORT ERIE.

Owing to the high tariff adopted by this country, I am at a loss what to advise in order that our own trade may be increased. An examination of the imports, as given herewith, will show that notwithstanding the protective policy the inhabitants must and do have, more or less, the products of the United States; and that they have *more* is shown by comparing the total imports, which, for the year ending September 30, 1880, were $685,658, while for the year ending September 30, 1881,

they were $911,629; or an increase of nearly a quarter of a million dollars, and $63,000 larger than during the year ending September 30, 1869, the year previous to the adoption of the new tariff.

At Port Colborne, in this district, the imports show a small reduction from the previous year.

It is reported that the commissioner of customs advises a reduction of duties on many of the necessaries of life. This will naturally diminish the revenue, though whether it will increase the imports, is a question to be solved by future results; for human nature is so constituted that it must have the necessities, and will have the luxuries, whatever may be the cost.

CROPS.

The past season has been an excellent one for grain crops, wheat and oats being much above the average, and barley fully up to that standard. The fine weather of the summer gave farmers the opportunity to gather their hay and grain in excellent condition, but the continuance of the drought injured very materially the corn and root productions; potatoes in particular are short, and will command a high price before spring. It being the "off" year for fruit, not much could be hoped for from that source; still, the harvest proved quite as fair as could have been expected; apples in general were scarce and of poor quality.

THE WELLAND CANAL.

The work of enlarging the Welland Canal has been completed, and it was formally opened for business—but so late in the season that it was not thoroughly tested, and its future workings are conjectures; still, by lightering, the largest lake vessels can pass through, and if the eastward passage of grain be once started, followed by the return freights westward, a serious injury to the rail and canal system of the United States must follow.

EXPORTS.

The exports declared at this consulate for the United States are less than for the preceding year, the loss being mainly on barley, lumber, and timber, while there is an increase on nearly all other commodities.

The exports, as furnished by the custom office at this port, show an increase of $144,287 for this year.

EMIGRATION.

But a small proportion of the emigrants from this section of the country procure their certificates at this consulate, the tendency being West, but in nearly every case the emigrant had either a father, brother, or friend in the "States," and was going to rejoin them.

From what I learn through those seeking information, the "exodus" will be larger the coming spring than heretofore, and in most cases the emigrants leave to become residents and citizens of the United States.

HARRY P. DILL,
Consul.

UNITED STATES CONSULATE,
Fort Erie, Ontario, December 27, 1881.

Statement showing the imports of Fort Erie, Ontario, for the year ending September 30, 1881.

Articles.	Quantity.	Value entered.	Amount of duties.	Countries whence imported.
Ale, beer and porter.....gallons..	153	$41	$15 30	United States.
Animals:				
Horses.....number..	6	310	62 00	Do.
Other.....	.....	84	16 80	Do.
Baking powders.....	.....	146	29 20	Do.
Books, printed.....	.....	2,653	362 95	Do.
Books, blank.....	.....	932	279 60	Do.
Books, advertising pamphlets..... number..	1,550	54	15 50	Do.
Brass, manufactures of.....	.....	3,066	875 40	Do.
Grain, and products of, viz.:				
Beans.....bushels..	9	16	1 35	Do.
Indian corn.....do....	243	185	18 24	Do.
Oats.....do....	120	24	12 00	Do.
Wheat.....do....	6½	19	98	Do.
Bran.....do....	.....	242	48 40	Do.
Corn-meal.....barrels..	27¼	62	10 90	Do.
Oat-meal.....pounds..	800	28	4 00	Do.
Wheat flour.....barrels..	152½	895	76 26	Do.
Carriages.....	.....	548	164 40	Do.
Cars:				
Railway.....	.....	2,839	848 70	Do.
Passenger.....	.....	12,000	3,600 00	Do.
Cement, hydraulic.....barrels..	453	428	181 20	Do.
Cement, hydraulic.....bushels..	52	19	4 68	Do.
Coal, anthracite.....tons..	8,230	36,293	8,858 49	Do.
Coal, bituminous.....do....	210,591	668,759	126,354 59	Do.
Coke.....do....	256½	956	128 36	Do.
Coal tar.....barrels..	11	51	5 10	Do.
Cocoanuts.....number..	328	17	3 28	Do.
Coffee:				
Green.....pounds..	194	33	7 18	Do.
Roasted.....do....	1,100	193	52 30	Do.
Cotton, manufactures of:				
Bleached and unbleached.....yards..	3,729	408	98 50	Do.
Ginghams.....do....	1,579	219	64 43	Do.
Jeans, &c.....do....	2,968	496	133 76	Do.
Clothing.....	.....	704	210 85	Do.
Other manufactures.....	.....	1,986	398 73	Do.
Drain-pipes.....	.....	60	12 00	Do.
Earthenware and china.....	.....	63	18 45	Do.
Fruits:				
Apples, dried.....pounds..	50	5	1 00	Do.
Grapes.....do....	498	46	9 96	Do.
Oranges.....	.....	1,283	256 60	Do.
Peaches and plums.....bushels..	68½	164	26 20	Do.
Small fruits.....quarts..	244	28	4 58	Do.
Canned fruits.....pounds..	1,421	108	41 31	Do.
Glassware.....	.....	428	120 70	Do.
Gunpowder and other explosives.....pounds..	986	214	69 70	Do.
Gold and silver, manufactures of.....	.....	239	71 70	Do.
Hats.....	.....	512	128 00	Do.
Iron, manufactures of:				
Bars of iron.....cwt..	45	185	29 03	Do.
Boiler-plate.....do....	113	659	82 39	Do.
Engines, locomotives.....number..	13	32,083	8,020 75	Do.
Hardware, builders, &c.....	.....	2,944	883 20	Do.
Iron bridge.....cwt..	53	241	60 25	Do.
Machines and machinery:				
Sewing-machines.....number..	97	1,958	585 60	Do.
Mowing-machines.....do....	2	110	27 50	Do.
Thrashing-machines.....do....	2	864	216 00	Do.
Other machines.....	.....	3,400	850 00	Do.
Iron castings.....	.....	3,827	959 90	Do.
Nails, cut.....pounds..	4,256	140	35 66	Do.
Safes.....	.....	150	37 50	Do.
Scales.....	.....	346	103 80	Do.
Stoves.....number..	8	159	39 75	Do.
Tubing.....feet..	363	110	19 95	Do.
Wire.....cwt..	1,731	9,213	1,881 95	Do.
Steel, manufactures of:				
Muskets, pistols, &c.....	.....	115	23 00	Do.
Other manufactures.....	.....	651	180 20	Do.
Jewelry of gold and silver.....	.....	3,645	729 00	Do.
Leather and manufactures of:				
Leather.....pounds..	1,511	461	90 90	Do.
Boots and shoes.....pairs..	47	169	24 75	Do.
Harness.....	.....	332	83 00	Do.
Marble and manufactures of.....	.....	752	177 95	Do.
Metal type.....	.....	96	19 20	Do.
Musical instruments:				
Organs.....number..	3	190	63 50	Do.
Other instruments.....	.....	28	7 00	Do.

Statement showing the imports of Fort Erie, Ontario, &c.—Continued.

Articles.	Quantity.	Value entered.	Amount of duties.	Countries whence imported.
Oils:				
Petroleum, refined ..... gallons..	30, 981	$4, 929	$2, 230 70	United States.
Petroleum, products of ..... do....	11, 884	2, 953	855 73	Do.
Packages	.....	1, 554	310 80	Do.
Paints	.....	672	143 15	Do.
Paper and manufactures of:				
Paper, calendered	.....	11	2 48	Do.
Paper hangings	.....	555	166 50	Do.
Paper, other and manufactures	.....	614	148 90	Do.
Patent medicines	.....	2, 060	533 00	Do.
Plants and trees	.....	1, 691	338 20	Do.
Plaster of Paris ..... pounds..	1, 200	6	1 80	Do.
Printing presses ..... number..	1	116	11 60	Do.
Provisions:				
Beef ..... pounds..	571	44	5 71	Do.
Bacon and hams ..... do....	13, 008	1, 318	260 16	Do.
Cheese ..... do....	203	20	6 09	Do.
Lard ..... do....	2, 417½	280	48 35	Do.
Pork ..... do....	200	20	2 00	Do.
Salt ..... do....	300	1	36	Do.
Seeds	.....	103	15 45	Do.
Slate	.....	19	4 75	Do.
Soap ..... pounds..	174	10	2 61	Do.
Starch ..... do....	2, 003	66	40 06	Do.
Stone ..... do....	310	3	31	Do.
Sugars ..... do....	363	68	27 43	Do.
Syrups ..... do....	977	36	16 91	Do.
Syrups, glucose ..... do....	594	23	11 02	Do.
Tea ..... do....	130	48	12 86	Do.
Tin, block ..... do....	125	9	90	Do.
Tin, cans ..... number..	301, 979	8, 849	4, 529 70	Do.
Tinware	.....	169	42 25	Do.
Tobacco and manufactures ..... pounds..	18	29	13 60	Do.
Turpentine, spirits of ..... gallons..	51	23	4 60	Do.
Unenumerated articles	.....	1, 090	218 00	Do.
Varnish ..... gallons..	33½	81	22 90	Do.
Vegetables:				
Potatoes ..... bushels..	35½	29	8 55	Do.
Potatoes, sweet	.....	278	55 60	Do.
Tomatoes ..... bushels..	8	24	2 40	Do.
Tomatoes, in cans ..... pounds..	2, 020	89	40 40	Do.
Watches	.....	42	10 50	Do.
Wine ..... gallons..	10	9	5 20	Do.
Wood, manufactures of:				
Furniture	.....	1, 091	381 85	Do.
All other	.....	2, 713	678 25	Do.
Lumber	.....	182	36 40	Do.
Wool, manufactures of:				
Blankets ..... pounds..	66	23	13 57	Do.
Carpets ..... yards..	34½	39	11 65	Do.
Clothing ..... pounds..	32	43	18 95	Do.
Flannel ..... do....	124	91	27 51	Do.
Total, dutiable	.....	832, 483	164, 853 33	
Total, free	.....	79, 146	.....	
Total, imports	.....	911, 629	164, 853 33	
Clays ..... cwt..	104	75	Free	United States.
Whiting ..... do..	3	4	....do	Do.
Oysters in cans ..... pounds..	354, 225	45, 256	....do	Do.
in bulk ..... gallons..	38, 526	19, 777	....do	Do.
Jute ..... cwt..	59	152	....do	Do.
Bells for churches	.....	14	....do	Do.
Bolting cloths	.....	119	....do	Do.
Cotton waste ..... pounds..	1, 450	136	....do	Do.
Colors ..... do....	2, 466	219	....do	Do.
Alum ..... do....	600	18	....do	Do.
Annatto ..... do....	25	5	....do	Do.
Duck for belting	.....	133	....do	Do.
Fish-tackle	.....	332	....do	Do.
Anchors ..... cwt..	28	70	....do	Do.
Steel ..... do..	6	42	....do	Do.
Moss ..... do..	19	21	....do	Do.
Oil-cake ..... do..	4	7	....do	Do.
Rags ..... do..	821	3, 520	....do	Do.
Settlers' effects	.....	9, 177	....do	Do.
Articles for foreign consuls	.....	59	....do	Do.
Total free	.....	79, 146	.....	
Total dutiable	.....	832, 483	.....	
Total imports	.....	911, 629	.....	

Statement showing the exports from Fort Erie, Ontario, for the year ending September 30, 1881.

Description.	Quantity.	Value, including costs and charges.	Countries whither exported.
The mines:			
Salt ..... bushels..	31, 030	$3, 103	United States.
Stone, rough ..... tons..	3, 800	1, 530	Do.
The fisheries:			
Fish, all fresh	.....	2, 202	Do.
The forest:			
Bark for tanning ..... cords..	2, 030	7, 129	Do.
Firewood ..... do....	226	455	Do.
Hoop, telegraph, and other poles	.....	45, 012	Do.
Lumber, boards, plank, &c ..... M feet..	8, 636	107, 431	Do.
Lumber, staves, and heading bolts ..... M..	9, 950	41, 310	Do.
Masts and spars ..... pieces..	67	3, 055	Do.
Shingles ..... M..	237	1, 137	Do.
Timber, oak logs ..... M feet..	128	1, 916	Do.
Stave bolts ..... cords..	763	2, 105	Do.
Animals and their produce:			
Horses ..... number..	1, 773	187, 256	Do.
Horned cattle ..... do....	1, 396	27, 196	Do.
Swine ..... do....	1, 044	1, 669	Do.
Sheep ..... do....	47, 908	186, 427	Do.
Sheep ..... do....	200	1, 600	England.
Poultry and other	.....	14, 924	United States.
Bones ..... cwt..	440	122	Do.
Butter ..... pounds..	15, 010	2, 796	Do.
Butter ..... do....	4, 000	800	England.
Cheese ..... do....	1, 979, 358	201, 130	Do.
Cheese ..... do....	342, 650	32, 270	United States.
Eggs ..... dozens..	1, 275, 910	170, 672	Do.
Hides, &c	.....	1, 660	Do.
Wool ..... pounds..	14, 525	4, 288	Do.
Agricultural products:			
Bran ..... cwt..	4, 990	2, 432	Do.
Flax ..... do....	1, 324	22, 965	Do.
Fruit, green ..... barrels..	33	37	Do.
Fruit, green ..... do....	7, 007	9, 101	England.
Barley ..... bushels..	492, 958	349, 576	United States.
Beans ..... do ...	6, 671	7, 180	Do.
Oats ..... do....	951	316	Do.
Pease ..... do....	3, 562	2, 388	Do.
Pease ..... do....	16, 463	11, 127	England.
Rye ..... do....	910	728	Do.
Rye ..... do....	2, 999	2, 203	United States.
Wheat ..... do....	9	13	Do.
Wheat ..... do....	313, 365	318, 027	England.
Hay ..... tons..	1, 664	17, 902	United States.
Potatoes ..... bushels..	9, 604	4, 092	Do.
Flour of wheat ..... barrels..	900	5, 250	Do.
Flour of wheat ..... do....	4, 000	24, 639	England.
Seeds, other	.....	4, 571	Do.
Seeds, other	.....	2, 590	United States.
Oat meal ..... barrels..	380	949	Do.
Oat meal ..... do....	375	1, 690	England.
Vegetables	.....	8, 743	United States.
Manufactures:			
Agricultural implements	.....	11	Do.
Gypsum	.....	210	Do.
Iron scraps	.....	1, 351	Do.
Machinery	.....	797	Do.
Oil-cake ..... cwt..	4, 445	11, 365	Do.
Oil-cake ..... do....	3, 716	11, 430	England.
Other articles	.....	1, 143	United States.
Rags	.....	73	Do.
Miscellaneous articles:			
Household goods	.....	15, 657	Do.
Ice	.....	210	Do.
Total exports	.....	1, 837, 361	
Total exports to United States	.....	1, 253, 118	
Total exports to England	.....	584, 243	
Total exports	.....	1, 837, 361	

WAGES OF ENGLISH FACTORY OPERATIVES.

REPORT BY CONSUL SHAW, OF MANCHESTER.

The following average earnings per day of operatives in this consular district have been carefully prepared and represent fairly the wages of this great manufacturing center.

Average earnings per day in an East Lancashire cotton-weaving mill.

(Hours of labor, 56 per week.)

Weavers, 3 looms	$0 64 to $0 72
Weavers, 4 looms	80 to 96
Weavers, 6 looms	1 20 to 1 44
Weavers, children, half-timers	14
Beamers or warpers	70 to 90
Winders	50 to 80
Tapers or sizers	1 20 to 1 68
Tacklers or overlookers	1 12 to 1 68
Engine-drivers and firemen	96 to 1 68

Average earnings per day in an Oldham cotton-spinning mill.

(Hours of working, 56 per week.)

Mule overlookers	$1 60 to $2 00
Carders	1 60 to 2 00
Strippers, Jobbers, Grinders	88 to 96
Drawing and slubbing hands	65 to 76
Intermediate and roving hands	62 to 76
Little tenders (full time)	36
Little tenders (half time)	16

Average earnings per day in a Blackburn cotton-spinning mill.

(Hours of working, 56 per week.)

Spinning masters and carders	$1 20 to $2 00
Spinners	1 20 to 1 40
Piecers	46 to 56
Creelers	28 to 34
Rovers	58 to 66
Slubbers	50 to 60
Drawers	52 to 56
Grinders	85
Blowroom hands	48 to 85
Engine-drivers	84 to 2 00
Firemen	64 to 84

The lower wages, say from 28 to 75 cents per day, are paid to boys, women, and girls. "Half-timers," those who attend school half of a day and work the other half, are really valuable helpers, and many of them become skilled operatives by the time they are old enough to be allowed to work as "full-timers" under the law.

Retail prices of provisions.

Bread	15	cents per loaf of four pounds.
Sugar	5	cents to 8 cents per pound.
Tea	44	cents to 60 cents per pound.
Coffee	28	cents to 35 cents per pound.
Butter	20	cents to 40 cents per pound.
Fresh meats	13	cents to 25 cents per pound.

Bacon	10 cents to 18 cents	per pound.
Cheese	12 cents to 18 cents	per pound.
Eggs	16 cents to 48 cents	per dozen.
Potatoes	0½ cents to 1 cent	per pound.
Cabbages	4 cents to 6 cents	each.

Vegetables are dearer in England than they are as a rule in the United States.

ALBERT D. SHAW,
Consul.

UNITED STATES CONSULATE,
Manchester, December 1, 1881.

AMERICAN MEATS IN ENGLAND.

REPORT BY CONSUL SHAW, OF MANCHESTER.

The wide difference between the price English butchers pay our American exporters for their meats, as compared with the price they charge for the same at retail, leads me to again refer to the great need of the adoption of better methods for placing our meats on sale here.

At present the English dealer makes an unusal profit out of the American meat supply. This is often done by misrepresenting the kind of meat he sells, for it is a common practice, I am credibly informed, to claim that the beef, mutton, &c., on sale is all English, when, in fact, most of the weight on hand has just come from the American supply at Liverpool. Not long ago a case in point came under my own observation. I made inquiry of a retail butcher if he sold American meats, and he replied with some warmth, "No, sir, I could not sell it here." The same afternoon I was conversing with a gentleman, and incidentally mentioned what the butcher had told me. He laughed and said, "Two days ago I was coming down —— street, in Manchester, and saw this same butcher drop a paper. I picked it up, and it was a long bill of American meat, and when he assured you he sold no American beef, he forgot that *all* his stock that day was *American* beef, and *American only!*" This plain statement of a fact illustrates how easy it has heretofore been for the English retail dealer to cheat and deceive consumers as to the beef sold. The prejudice formerly existing against American beef is largely a thing of the past.

And now that consumers are learning the tricks played upon them by butchers, it would be a wise plan, in my opinion, for American exporters of beef and mutton to take steps to compel fair dealing, to say the least, on the part of retail butchers here. Several years ago shops for the sale of American meats were opened in various centers, but owing to the hue and cry raised against them by the retail trade generally, and also on account of the prejudices with which consumers always regard a new source of supplies of food for this country, the plan did not prove a success. Besides, the supply was, owing to the uncertainty of the new enterprise, irregular—a state of things which no longer exists. I believe the present is a favorable time to repeat the experiment under wise and judicious management. Our meats have won their way everywhere, and there is now no good reason why our exporters should not receive at least two cents a pound more for their meat at Liverpool, leaving retail butchers here a round profit, and enabling the consumer to purchase the same at a reduction from present prices of from two to three cents per pound. A cheaper supply of good beef would insure an enormous increase in the quantity con-

sumed, so that cheaper meat would be a great boon to many of the laboring poor, who now rarely eat beef on account of its expense. American meat would be as readily bought under its right name as it is now under a false name, and with this difference—the producer and consumer would each be benefited, where now only the retail dealer reaps an undue profit.

The supply from our country is now so regular, and the quality is so excellent, that no trouble need be apprehended about securing a good market for it in England. The name American is no longer a reproach in this country. Experience has taught the English people that our country is capable of producing first-class articles for export, and if care is taken to send over only the best of everything, and wise methods are followed in placing our products on sale here, there will be no difficulty in disposing of the same promptly, and at good prices.

ALBERT D. SHAW, *Consul.*

UNITED STATES CONSULATE,
Manchester, December 1, 1881.

TECHNICAL EDUCATION.

REPORT BY CONSUL SHAW, OF MANCHESTER, ENGLAND.

The active interest now being taken in this country in developing technical education, must have an important bearing upon the future of manufactures. This is a subject that should commend itself strongly to the attention and support of our own people, because it will not do to be late in taking advantage of a leading element in the great problem of superiority in the higher branches of manufacturing industries. The practical education of the young in all the details that enter into the manipulation of raw materials must be of the greatest service, as it will develop a class of thoroughly competent experts, and lead to new and novel methods of treatment in the processes of manufacture. As wealth increases there will be a growing demand for new artistic productions, and of a class where excellence will be the controlling question, so far as price and fashion are concerned. For this reason no pains should be spared in providing technical schools in every section of our country, so as to popularize the study of a most useful and necessary science—for such it really is—and which is, at the same time, both practical and useful. Technical schools undoubtedly develope a fondness for the manipulation of the various raw materials coming under the attention of the children, and this must lead to a feeling of content among those who finally, from choice, choose to earn a livelihood by working in the factory or the forge. The question of fixity of labor, combined with educated skill in the use of materials, is one of great interest to American manufacturers. In this country the development of this system of education has been rapid of late, and at the present time a commission, appointed by the government, is considering the whole question. It is undoubtedly a very important one, and the report of this able commission will, it is believed, contain much valuable data. Anything that tends to raise the standard of manufactures at this time has a special value, for the reason that the best products command the best prices, and to secure fine manufactures it is necessary to have skilled operatives of the best class.

ALBERT D. SHAW, *Consul.*

UNITED STATES CONSULATE,
Manchester, December 1, 1881.

ENLARGEMENT OF AMERICAN TRADE ABROAD.

REPORT BY CONSUL SHAW, OF MANCHESTER, ENGLAND.

I should be glad to feel that any words of mine would have weight in calling earnest attention to the need of adopting better methods in placing our manufactures before foreign consumers, especially in Eastern markets. I have in past years strongly recommended this subject to the consideration of our merchants and manufacturers, and I have no doubt about the wisdom of the plan I have frequently pointed out in previous reports. I have abundant opportunities in this great commercial center of seeing the important advantages which English merchants enjoy in this respect owing to their admirable and extended system of partnerships and "branch houses" in distant parts of the world.

It is not too much to affirm that whenever English goods are at all extensively sold in foreign markets, especially in the East, there resident partners and intelligent local connections will be found representing the home house, and keeping the manufacturers advised of the needs of each particular point to which shipments are made. In this way the prejudices of consumers become known, their habits and tastes are studied, and the right article can be made to order, perfectly suited to the needs and fashions of each particular section. This is a point of great importance when all the facts bearing upon it are fully understood.

This wise system places the controlling trade of each distant foreign center in the hands of English merchants, and this is the direct result of studying the best means of supplying each locality in which English manufactures are sent for sale.

At present American manufacturers and merchants suffer seriously from the lack of three great aids in the fight for commercial prominence in the foreign markets of the world: FIRST, DIRECT LINES OF AMERICAN SHIPS TO FOREIGN PORTS; SECOND, WIDELY-EXTENDED BANKING FACILITIES IN DISTANT TRADE CENTERS; AND, THIRD, BRANCH HOUSES IN EVERY GREAT FOREIGN MARKET.

It is not my province to point out the vast influence which English steamship lines exert over the commerce of the world. It is simply colossal in magnitude, and the income from these lines is believed by well-informed experts to amount to the enormous sum total of £200,000,000 sterling, annually. One single dry-goods house in New York alone paid nearly $100,000 for freight last year. These facts are full of interest to every one who appreciates the vast power, in many ways, which these figures represent. The second element in the race for commercial prominence in foreign parts is a complement of the first, and banking facilities must follow, rather than go before, the establishment of American lines of steamers. Capital will follow wherever ships lead the way and open up a field for its safe and profitable employment. The third aid is, like the other two I have named, of great importance. The resident partners and branch houses control nearly all of the vast volume of English manufactures which find an ever-widening market in Eastern countries. In our age the old rule, that "Trade follows the Flag," has given place to a more modern one, viz., TRADE FOLLOWS ENTERPRISE AND WISE BUSINESS METHODS. The way is open for our

people to take a leaf out of the book of English experience, and there can be no question about what the fruits of well-directed enterprise would be in this direction. The plan adopted by English merchants in developing trade with the East is one that has been fully tested and found equal to the needs of the situation. A volume could hardly do justice to this subject, but my present purpose is merely to direct attention to a matter which is worthy of serious consideration in the hope that it may cause inquiry, and so lead to good results.

ALBERT D. SHAW, *Consul.*

UNITED STATES CONSULATE,
Manchester, December 1, 1881.

ADULTERATION OF AMERICAN COTTON.

REPORT BY CONSUL SHAW, OF MANCHESTER, ENGLAND.

During the past year I have received numerous complaints as to the adulteration of cotton from the United States with sand, water, and other fraudulent foreign substances, and also as to certain defects in the method of preparing and packing American cotton for the English market. The complaints were so widespread and of such a serious character, endangering, as they do, vital interests of a large section of our country, that I deemed it my duty to make a thorough investigation of the matter, and I therefore instituted a general and exhaustive inquiry among the master spinners in the various Lancashire cotton-spinning districts, of which Manchester is the commercial center, my object being to ascertain whether the complaints were well founded, and, in that event, to glean some practicable suggestions as to the means by which the causes of complaint might be removed. The facts and opinions which I have obtained were supplied by large consumers of American cotton after conference with other cotton spinners in their respective districts. Inquiries have been made on my behalf in Ashton-under-Lyne, Bolton, Blackburn, Burnley, Oldham, Preston, Stockport, and Warrington, and as each of these towns is the headquarters of a local association of master cotton spinners, which includes the neighboring towns and villages, the information I have now to present is of a most comprehensive character, and the opinions of my informants may be taken to represent fully and fairly the views of the cotton trade generally, at any rate in those districts where our cotton is most largely consumed.

MIXING DIFFERENT KINDS OF COTTON.

Numerous complaints have reached me to the effect that American cotton in the same bale is often of different staple or fiber. The consumers of cotton from the United States were asked to say whether they attributed this difference of staple to inefficient sorting or to intentional mixing of dissimilar kinds of cotton. Their answers may be summarized thus: Where the color of the cotton is uniform, want of proper sorting or over-ginning will probably account for cotton of different staple in the same bale; but when the cotton is found in layers of different sorts, as I am assured by a Preston spinner is often the case, the spinners are of opinion that it is the result of fraudulent admixture of different kinds of cotton, and does not arise from careless sorting. The even grading of cotton is very important, and there is room for improvement in this respect in much of the cotton received from America. Serious complaints

under this head were made against India cotton some years ago, but at present this fault does not appear. The plan of careful inspection by first purchasers, which was adopted in India, should be put into force with us. In this way a better grading of our cotton would undoubtedly be secured.

DAMP COTTON.

Numerous complaints have likewise been made of unnatural damp in American cotton, and the spinners generally do not hesitate to accuse the packers of infusing steam, and even of throwing quantities of water into the cotton during the process of packing, with the object of augmenting its weight. One of the most experienced cotton spinners in Lancashire says "that all American cotton is packed with the addition of water, more or less. No other cotton imported into England loses weight like American cotton does, whilst some kinds actually gain in weight. When an excessive quantity of water has been used, I find the middle of the bales caked as hard as wood, and sometimes mildewed. The first lot of cotton we had of the 1880 crop lost nearly 8½ per cent. in the process of drying." A spinner in the district of Ashton-under-Lyne states that "cotton will absorb 2 or 3 per cent. of damp naturally in wet weather, even when not directly exposed to wet. If left exposed it would absorb much more. The percentage of damp varies considerably, and is frequently more than can be accounted for naturally. Complaints of discoloration or caking, through the addition of water, are not common, but complaints of country-damaged cotton are not unfrequent." An Oldham spinner says: "A great number of complaints of damp have been made by spinners respecting the last crop of cotton, more especially about the beginning of 1881. In some cases there was from 3 to 6 per cent. of unnatural damp, resulting in very serious loss to the spinners. Judging from the appearance of some of the cotton, the water had been poured into it in quantity, sometimes discoloring the cotton and causing it to cake. The cotton coming from New Orleans district is particularly complained of, but cotton from other districts has been by no means free from damp." My Stockport informant says that the amount of damp in American cotton has gone on increasing, and that he has seen lots of samples spotted with wet and discolored. From Warrington I also learn that "in numbers of cases the bales give the appearance of water having been thrown in during the process of packing, as the center of the bale is frequently found to be in layers of caked cotton, very wet, and often highly discolored. In other instances whole bales have had the feel of having been steamed to a considerable extent before packing. In March last we made several tests for damp, in all cases subjecting the cotton to a temperature of 120° till dry, and then allowing the cotton to cool for one hour in the open air. These tests showed the following results: 10.94 per cent. of water, 15.74 per cent., 10 per cent., and 11 per cent., respectively. In none of these tests was the caked cotton dried. The cotton tested was good middling Orleans."

DUST AND SAND IN COTTON.

Complaints as to the adulteration of American cotton by the addition of dust and sand, are not only more general than the complaints in regard to the mixing and damping of cotton, but they are likewise of a far more serious character. There have been extreme cases brought to my attention in both respects, and some of these have been of a shameful description. Whether the adulteration consists of a percent-

age of sand, or of an equal percentage of damp, the actual loss to the spinner is the same in each instance. I have, therefore, endeavored to obtain precise information on this subject. In the course of my inquiries the spinners were asked to state what kind of sand is most frequently found in the cotton, and in what quantities it has been discovered; whether they ascribe it to the need of more efficient apparatus for cleansing the cotton, or whether the proportion of sand is sometimes so large as to lead them to believe that it had been wilfully added. They were also desired to say from what parts of America they receive the worst adulterated and worst-sorted cotton, and whether any particular class of cotton is more complained of than others. The answers to these questions are somewhat humiliating to an American. In too many cases the adulteration is flagrant and extensive. "Oldham," I am told, "has to purchase, at the price of cotton, thousands of tons of white and red sand every year," and some concerns, it is said, have been carried on at a loss in consequence of this grievous adulteration of the raw material. I am inclined to the opinion that the above estimate is erroneous, and that "hundreds of tons" would come nearer the truth than "thousands of tons;" but, in either view, the undoubted presence of sand and damp in large percentage in bales of our cotton is a scandal that cannot be exposed, and the frauds done away with, a day too soon. In some instances the sand is evidently thrown into the cotton, during the process of packing, in shovelfuls, and one of the largest consumers of American cotton in Lancashire—a spinner in the Ashton-under-Lyne district, whose supply is mostly from New Orleans—mentions a case in which nearly 100 pounds of sand was found in one bale of cotton. In quite a number of cases that have been brought to my notice, sand in quantities varying from 20 to 80 pounds has been found in the middle of bales of cotton. The sand was evidently wet when the bales were pressed, because, in some instances the cotton about the sand was discolored and "caked." A Preston cotton spinner who has "worked every kind of cotton named in the Liverpool Weekly Cotton Circular, from Sea Island to Bengal," and who makes it a practice to examine personally 75 per cent. of the cotton used by his firm, informs me that "the adulteration of cotton with dust and sand is a pest almost peculiar to American cotton. Very rarely (he says) is a sandy lot of cotton alike as regards the amount of adulteration. Some bales may be wholly free from sand, others will contain more or less, while two or three bales will be full of it." A Warrington firm of cotton spinners, who are extensive buyers of American cotton, say that in most cases the sand is so evenly distributed through the bale as to give to the cotton a deep red color, while in other instances the sand is so very fine and white as to be hardly perceptible at the first glance, and has the appearance, upon examination, of having been blown into the cotton. This view is likewise held by an Oldham spinner, who says that "dust and sand are apparently blown into the cotton by some process at or prior to packing." In these cases the purchaser is able to assess from samples, with tolerable certainty, the proportion of sand in the cotton he is buying, but in many instances, I am assured, the sand varies so considerably even in the same bale as to render it impossible, by means of samples, to determine the amount of adulteration with any degree of accuracy. Only one of the numerous cotton spinners I have consulted on this subject replied that in some cases the sand was probably left in the cotton through the inefficient action of the gins, and the same gentleman—a Stockport spinner—declares that in some cases sand and dust are evidently put into cotton at or before packing, some bales being found

quite free from sand, while others of the same lot contain large quantities such as could not possibly be taken up either in growing, packing, or ginning. A spinner in the Stockport district states that he purchased a lot of 100 bales, one-quarter of which were heavily laden with fine red sand, varying from 9 to 26 per cent. of their weight. A Warrington firm of cotton spinners inform me that they have recently made several tests to learn the amount of sand in the cotton they were using, strictly good and good ordinary Texas and Orleans. The results varied from 12½ to 25 per cent. and averaged 17½ per cent. of sand, which, in their opinion, had been willfully put into the cotton. They add, "We consider that our average loss from sand has been not less than 10 per cent." In the last case the loss appears unusually heavy, and was, no doubt, exceptional. That it was serious no one will deny when the large average loss of 10 per cent. is considered. A Preston cotton spinner finds middling and low middling cotton most subject to sand, and states that "leafy" and "sticky" cotton is less liable to it. A Stockport gentleman, who has had nearly forty years' experience as a cotton spinner, made the following statement on this subject: "In ordinary American the loss is very heavy, little less in low middling, while middling and upwards shows considerable loss from sand and dust. Twenty-five or thirty years ago, middling Orleans would only lose about three per cent. in the blowing-room, and now, even in qualities above that, the loss is seldom under five per cent. and often more than that. I have had apparently clean cotton which has lost nine per cent. in the blowing-room. Orleans and Texas are pronounced the most lossy cottons." Many old cotton spinners state that the adulteration of American cotton is much greater now than it was before the war. The explanation is advanced that likely the increased number of small producers of cotton has led to frauds to increase the weight of cotton sold by this poorer class.

COMPENSATION TO COTTON SPINNERS.

In reply to queries as to whether the consumer of American cotton has any means of obtaining compensation in respect of adulterated cotton, an Oldham spinner states that in cases where such cotton had been purchased "on spot," in Liverpool, there was a remedy in respect of caked cotton, which is considered unmerchantable, and an allowance could be claimed by the purchaser; but in cases where similar cotton had been purchased in America, there was no remedy for caked cotton. Whether cotton was bought "on spot" or otherwise, in no case could an allowance be obtained for damp. A Mossley spinner says the consumer can generally obtain compensation in cases of gross adulteration or of false packing, but not so generally from damp or sandy cotton; and a Stockport spinner informs me that the consumers receive no recompense for "spot" cotton, but for false-packed or caked cotton, damaged and unmerchantable, they recover from the merchant. A Preston spinner states: "As to compensation for damp, the consumer has hitherto had no redress, but the increasing amount of damp found in American cotton has caused such an outcry that the various associations of cotton spinners are beginning to take the matter up." The Egyptian and Indian cotton is free from damp now, and this fact leads manufacturers here to believe that American cotton is purposely wet to increase its weight. The repeated tests which have been made within the past year disclose a very large percentage of damp, and loud complaints are being made on this account at the present time. No redress for damp in cotton can now be had from cotton brokers except in case of "caked" cotton, the result of extreme wetting.

COMPARISONS—AMERICAN AND OTHER COTTON.

The cotton spinners were invited to say whether cotton from India, Egypt, or elsewhere is received in a more satisfactory condition than American cotton, and if so, in what respect. Replying to this question, a spinner in the district of Ashton-under-Lyne said, "that the best qualities of cotton from India and Egypt are better packed and freer from damp and sand than the American cotton." The increasing use of Indian cotton in this district proves that the efforts of those engaged in shipping cotton from India to England have been successful in this—that a great improvement in the cleanliness and purity of the supply has recently taken place. It stands our people in hand to look sharply after their own interests, by making every effort to purify the cotton trade, and by some means stop the alleged fraudulent damping and sanding of cotton, at the earliest moment possible. The hue and cry now raised about our adulterated cotton proves that great interest attaches to this subject here, and that there is urgent need of wise action on the part of our producers at home. From Stockport I learn that "Surat cottons always were more or less dirty and lossy, except the higher classes. Egyptian cotton, in lower qualities, is often dirty and lossy. Brazil, Peruvian, and those classes of cotton are not sandy. Indian cotton and those just mentioned are not damp." Within the past ten years there has been a great improvement in the purity of Eastern cotton. Loud complaints were formerly made about adulteration from sand and damp, and stringent laws were passed in Bombay making it a penal offense to adulterate or sell adulterated cotton. Inspectors were appointed by the government, presses were established, and a tax put on every bale of cotton to pay the expenses of the government regulations. This was done in 1863. In 1878 the act of 1863 was repealed, and some important changes were made by the new law which was enacted. The opening up of the interior of India by new railways, and better methods in purchasing cotton, brought about a reform in the whole cotton trade there. In fact, at present India cotton is noted for its purity, owing, chiefly, to the *inspections of the large houses engaged in purchasing cotton from native growers.* These pay better prices for clean cotton, and producers see the necessity of bringing only pure cotton to market. Government inspection has been declared, over and over again, to be a delusive and expensive experiment and recently the enforcement of the law was abandoned. Those best advised inform me that care in purchasing cotton from first hands, on the part of leading houses in the cotton trade in India, has brought about a much-needed reform.

BALING OR PACKING COTTON.

"The condition in which bales of American cotton arrive here," says a Stockport spinner, "is very unsatisfactory. The wrappers are of the poorest stuff, and from the bales being insufficiently pressed and of such varied sizes, they are wedged in the holds of the vessels with force and violence to prevent their moving in transit, and when unloaded they are ruthlessly pulled, and the covers torn in releasing them from the ship. The cost of mending is a considerable tax to some one, and when the covers are badly stitched or mended, the loss from pilfering is very great. Bales are broken to pieces in getting out of the ship, and all sorts of stuff and sweepings are again made up to represent the number of bales shipped. The condition and baling of Egyptian and Indian cotton are very superior and worthy of imitation." A spinner in the Preston dis-

trict states that there is much irregularity in the weights of the tares of American bales. There is no good reason why American cotton should not be baled as well as India or Egyptian cotton, but it is not at present. A load of American cotton which I saw passing along the streets in Oldham recently, looked as though it might have formed a part of some fort, and had been repeatedly struck by cannon shot. There was hardly a bale that was not torn, and cotton was hanging in patches from many of them. A large cotton spinner assured me that he very frequently had to pay from two to five pounds a lot for "repairs," in mending torn and badly covered bales—a tax not at all agreeable to pay. I am informed that similar charges are seldom. if ever, made to purchasers of Eastern cotton; and this fact, taken in connection with the far greater distance the cotton is freighted, proves that the material used in baling our cotton is of an inferior quality.

SUGGESTED REMEDIES AND GENERAL REMARKS.

The suggestions as to needful remedies for the causes of complaint are remarkably uniform, and coming from practical men of long and varied experience in the cotton trade, they are worthy of the most careful consideration. An Oldham spinner says that perhaps a remedy may be found when the perpetrators of the mischief have been discovered; and, to facilitate their discovery, he suggests that it should be made compulsory to stamp the names of the planter and packer inside and outside every bale; a plan, he says, which is voluntarily adopted to some extent. He also thinks it necessary to cause such accounts to be kept as will render every transaction easily traceable. Another spinner, of close upon forty years' standing, makes a similar suggestion. He says it would be a great help to both spinners and merchants in recovering for adulterated cotton, if the names and addresses of the planter and packer were stamped both inside and outside of the covers, and it would also give great assistance to the spinners if the tickets on the samples contained the same information, as experience would soon tell the trade which firms were trustworthy and which were not. A Mossley spinner said: "I think the planter and packer should be compelled by law to place their names inside every bale of cotton. In making claims it is generally impossible to trace the shipping and planters' marks on the wrappers satisfactorily, as such marks become illegible, and are obliterated through the rough usage which the cotton suffers."

The strongest expression of opinion that I have received is from a cotton spinner at Preston, who, to repeat his own words, "has worked every kind of cotton named in the Liverpool Weekly Cotton Circular, from Sea Island to Bengal," and who makes it a practice to examine personally 75 per cent. of the cotton used by his firm. His statement is as follows:

As to remedies, let the Americans pack their cotton without adding to it sand and water, and let their government make fraudulent packing penal. Some years ago Surat cotton used to be adulterated to an enormous extent, but after the passing of "The Cotton Frauds Act" that cotton has come forward in such improved condition that the better qualities of Broach and Dhollerah are preferred to middling uplands. It is our custom to compare every six months the weight of yarn and waste sold with the weight of cotton bought, and our experience has been that whenever we use Egyptian, Brazilian, or Surat cotton, we can account for every pound of cotton bought, either in yarn or waste. When we use American cotton there is always a very heavy weight of cotton unrepresented by either yarn or waste, varying from three to five per cent. For this reason I have for some years depreciated American cotton as compared with other kinds from ¼*d.* to ½*d.* per pound when making my purchases. There is no cotton so easy or so pleasant to spin as American cotton, but so much fraud prevails in its packing that it loses thereby much of the preference it would otherwise obtain.

The belief expressed by this spinner that the "Cotton Frauds Act" of Bombay led to the reforms in the adulteration of cotton, is at variance with the information I have already referred to. The fact that the act of 1863 was repealed in 1878, and that the new act of 1878 is now a "dead letter," would seem to support the view of my informant, himself a leading Bombay merchant, to the effect that the action of the first purchasers of cotton in India, by insisting on a pure article, and by paying a larger price for such, really led to the abandonment of "sand cotton," because "sanded" cotton brought a low price. There is no doubt about the fact that both sand and water are added to American cotton, to a greater or less extent, before or during the process of baling, to increase its weight. Of this there can be no question. Who the guilty parties are it is, under present conditions, hard to determine. It stands honest dealers in hand to at once bring these disreputable frauds home to the guilty parties, and to hereafter insist on the adoption of such general regulations or inspections on the part of packers and first purchasers as will effectually put a stop to a system of fraud as contemptible as it is unjust. I am satisfied that the fraudulent practices are of limited extent, and that the great body of American cotton is honestly put upon the market. The number of instances in which undoubted adulterations are found are comparatively small, and some of these are probably the result of accident or carelessness. And yet the frauds which are perpetrated are far too numerous and inexcusable, and a remedy for existing evils should be vigorously sought at once.

The importance of this subject cannot well be over estimated. The great cotton-producing States are deeply interested in their staple crop. Both the good name and profits of producers now suffer, in a sense, through the frauds I have described in this report. A remedy should be found for the correction of these abuses, and the sooner this is done the better it will be in the interests of fair play and common honesty. The system of packing cotton needs to be improved. If a large card could be placed in the center of each bale, with the name of the producer, the number of pounds in the bale, the date when packed, and a duplicate record kept to be sent with the cotton when sold, a check would be furnished by which all frauds could be readily traced. Then there could be no question about *damp* cotton especially. The record of the number of pounds originally put in the bale would show whether there had been any additional weight added from water. Of course, the cotton should be so baled that no tampering with it afterwards could be possible without detection. This point, it is believed by practical men, could easily be secured. I need not refer at any length to the great benefit which some such system as that I have sketched in this brief report would be to the growers of cotton in the United States. In my interviews with English manufacturers I have made full inquiries about the reason why more American cotton is not purchased "to arrive," instead of "on spot," at Liverpool. The answer has invariably been, "Because we are afraid that the cotton will not turn out right, and our remedy, if any, would be remote and troublesome." Owing to a faulty system of inspection and fraudulent adulteration through sand and water, manufacturers are afraid of "taking the chances" of purchasing their cotton direct from the American dealers. There surely should be some way of overcoming this controlling objection to making direct purchases, for such a course would certainly insure producers better prices for their cotton, and this is the class that deserve attention.

American cotton brokers residing in the Southern States do not, ap-

parently, understand why direct sales cannot more readily be made to consumers here. If this could be largely done there would be a considerable saving in commissions and charges that now go to "middlemen" in England. The facts are, that, owing to the lack of proper safeguards in handling the cotton, purchasers in this country doubt the expediency of ordering their supply direct. The distance is a bar to quick and easy adjustments of disputes, and, in the absence of some safe system of inspection and record of each bale of cotton, they prefer to deal with the Liverpool cotton brokers. With them they can settle any considerable fraud either from "sand" or "caked" cotton cheaply and promptly, and for this reason the system is continued. A leading English spinner told me that he once bought a large quantity of American cotton "to arrive," which turned out badly. He assured me that his rule in business was "once bit, twice shy," and he had taken good care not to be caught again in this way. His experience and action explain better than any words of mine can the effect of dissatisfaction on the part of purchasers here, so far as buying our cotton "to arrive" is concerned. I have in my office quite a collection of unique samples of articles found in bales of American cotton. From the many cases brought before me, the following will give a good idea of the complaints made about the adulteration of our cotton. In one there are the fragments of a toy pistol broken into small pieces; in another a stone weighing five pounds and a half; in a third a lot of cartridges; in a fourth a sample of clean white sand, taken from a bale I saw opened, which contained about forty pounds of the same; and in a fifth a sample of "caked cotton" weighing many pounds—as hard as a board—having been pressed when soaked in water.

The fragments of a pistol, it would seem, must have been put in the bale by accident, as the weight was trifling, but the damage which the pieces of iron might have caused to the machinery would have been very serious, with a possibility of setting fire to the mill. The sand and damp, however, are the important and common frauds which are met with here. I transmit an official record of cases wherein tests were made to ascertain the amount of sand and damp in several lots of cotton marked A. This is from a reliable source, and I submit the same in the hope that the leading cotton interests in the United States will promptly inaugurate such safeguards as will effectually put a stop to bad trade practices. I also forward a copy of a letter received from Mr. S. Andrew, secretary of the Oldham Cotton Association, marked B, referring to the subject-matter of this report. The enclosure marked C tells its own story, and it is from a reliable house. I need not make one word of comment on a case of this character. The letter marked D, taken from a leading Manchester daily paper, shows that the adulterations of cotton-yarn by damp in Oldham, from whence comes the most complaints about our damp cotton, is a fact, and that two can play at this game of fraud; and that there is need of reform in the cotton trade here as well as in the United States. The manner in which water finds its way into the raw cotton and the manufactured yarn is, to say the least, "peculiar."

I have given a good deal of attention to this subject, believing that producers in our country will be glad to know the facts in connection with the adulteration of their cotton.

I believe that this report fairly covers the ground of present complaints, and I have endeavored to make it full and impartial.

ALBERT D. SHAW,
Consul.

UNITED STATES CONSULATE,
Manchester, England, December 1, 1881.

A.

THE COTTON SPINNERS' ASSOCIATION,
14 MARSDEN STREET, BROWN STREET,
Manchester, 29th October, 1881.

SIR: Since my recent interview with you upon the subject of complaints of the growing evils of damp and sand in cotton coming from the United States, I have collected from members of the committee of the Cotton Spinners' Association some particulars of cases within their personal experience, and thus fully verified.

In making a selection of the cases, as appended, I may also venture to say that the committee will be glad, on any suitable occasion, to make a systematic collection of facts from the trade at large.

Yours faithfully,

EDWIN GUTHRIE,
Secretary.

To Colonel SHAW,
U. S. A. Consul, Manchester.

Cases of damping, sanding, and other adulterations in the packing of American (U. S.) cotton

THE COTTON SPINNERS' ASSOCIATION,
32 BROWN STREET, MANCHESTER,
29th October, 1881.

CASE 1.—J. F. B.

On the 5th of September, 1881, we bought 148 bales in the Liverpool market at 6$\frac{1}{16}$d. (middling being 7$\frac{3}{16}$d.), and on putting the cotton to the usual tests at the mill we found a loss of 22 per cent., as against the normal loss of 11 per cent.

In this case the increase in *loss* was owed to the *extreme sandiness* of the cotton.

CASE 2.—I. H. M.

Bought a lot of *new* cotton of "fully middling," at sea. Name of ship and date of sailing given.

When the cotton reached the mill—

2 bales were tested, and lost of sand.... 38 pounds.
3 bales more tested, and lost of sand... 63 pounds.
5 bales more tested, and lost of sand... 61 pounds.
} A sample of the sand herewith.

10 bales altogether were tested, and sand. 162 pounds.

The ship-marks on the bales were C—E.

CASE 3.—A. R. W.

Within the last two or three days we have made several tests for *sand* with the following results:

1st. 9 lbs of cotton lost by simply hand-shaking..... 1$\frac{1}{2}$ pounds
It was then put carefully through James Holt's (Oldham) opener, where it lost another..... 1 pound
} *i. e.*, in all 2$\frac{1}{2}$ lbs. sand, or equal to } 25 per cent.

2d. 8 pounds of cotton (same mark) lost of sand in the opener..... 18 "
3d. 13 pounds of cotton (another mark) lost of sand in the opener. 12$\frac{1}{2}$ "
4th. 10 pounds of cotton (same mark) lost of sand in the opener... 15 "

All which tests for *sand* have been made in *strict* or *good ordinary* Texas and Orleans.

We consider that in the case of *sand*, the average loss amounts to not less than ten per cent. In most cases the sand is so evenly distributed through the bale as to give to all the cotton a deep *red* color. In other cases the sand is so very fine and *white* as hardly to be detected, and has the appearance of having been *blown into* the cotton. At times we have bales in which the sand has been *thrown in* during the packing.

In the month of last March we made several tests for *damp*, in all cases subjecting the cotton to a temperature of 120° (Fahrenheit), and then allowing the cotton to cool for one hour in the open.

1st. 4 pounds of damp cotton lost 10.94 per cent.....
2d. 2 pounds of damp cotton lost 15.74 per cent.....
3d 8 pounds of damp cotton lost 10 per cent.....
4th. 8 pounds of damp cotton lost 11 per cent .....
} Average loss, 11.564 per cent.

In these cases the *caked* cotton was not tested. The sorts used in testing for damp were *good middling.*

In numbers of cases the bales gave the appearance of water having been *thrown in* during the packing, as we frequently found the center of the bale to be in large layers of *caked* cotton, and very wet. In very many instances the whole bale was as if it had been *steamed*.

CASE 4.—J. M. B.

Gives an elaborate statement dealing with fifty lots of cotton received at the mill during the ten months already expired of the present year. The dates of receipt (or testing), the number of bales in each lot, the name of the ship, the port of shipment, the marks of the bales, the loss of weight by damp separately, the loss of weight by damp and sand together, the weight of waste, and the neat product of usable cotton, all are given.

The loss by damp is given in thirteen out of the fifty lots; in the remaining thirty-seven cases the loss by damp and sand is combined.

The trials specially made for damp were by exposure on the floor of a dry room for one night only, after which the cotton was subjected to the usual tests for waste, sand, damp, &c.

The whole of the testings were from samples of cotton taken indifferently from ten to fifteen bales out of each separate lot when received at the mills. The samples were in every case taken from the middle of the bale.

The total result is a loss by damp and sand of 314 lbs. 7 oz. on 5,000 lbs. of cotton = 6.29 per cent.

CASE 5.—J. M. M.

The great bulk of our American cotton comes from New Orleans, and we not infrequently find the cotton adulterated with sand to an extent that cannot be accounted for from natural causes. Only a short time ago we found a bale of such cotton containing ninety-four pounds of sand, mostly *in the middle of the bale*. Such adulterations *must* be known to the packers.

In other cases we find lumps of wood, bricks, and iron, a piece of the last, weighing fifteen pounds, was found in a bale a few days ago.

We have had reason also to complain of water-packed bales.

CASE 6.—I. H. M.

	New Marks.	Old Marks.
Lot of 12 bales, American, bought 12th October, 1881	D & R	(V) N G

1 bale, weighing 6 cwt., 0 qrs., 13 lbs., contained of sand 126 lbs.

CASE 7.—I. H. M.

Lot of 38 bales bought three weeks ago. Seven bales thereout were "sandwiched;" the top and bottom layers of the bales being according to class at 5¼d. per lb., whilst the intermediate bulk was of stuff not worth more than 4d. to 4½d. per lb.

CASE 8.—O. S. B.

Similar in result to Case 6. Weight of the bale 6 cwt., 0 qrs., 12 lbs., the sand therein weighing more than 2 cwt. In this case the sand has been preserved; this happened about a week ago.

B.

OLDHAM, *October* 18, 1881.

Col. ALBERT D. SHAW,
United States Consul, Manchester:

DEAR SIR: In reply to yours requesting my views on the subject of the needs in the way of better assorted and packed cotton coming from the United States, I have to say that under present circumstances the cotton spinner has often to run the risk of considerable loss, from the fact that damp, dust, and sand are evidently knowingly put into the bales in packing. A great number of complaints of damp have been made by spinners respecting the last crop of cotton, more especially about the beginning of the present year. It was stated to me that there was an unnatural damp in some cases amounted to 6 per cent., and even more, resulting in very serious loss to spinners. Judging from the appearance of some of the bales, the water had been poured in, in quantity, sometimes discoloring the cotton and causing it to cake. In cases where cotton of this description has been purchased on spot in Liverpool there was some remedy against the caked cotton, it being considered unmerchantable, and allowance could be claimed by the buyer, but in cases where the cotton had been purchased in America there was no remedy for "caked" cotton, and whether the cotton was bought on spot or otherwise, in no case could allowance be obtained for damp. This com-

plaint of damp was made particularly this year about the cotton coming from New Orleans district, but the cotton from other districts was by no means free. With respect to dust and sand, this has long been a standing grievance among spinners. Dust and sand are apparently blown into the cotton at or previously to the packing. Purchasing cotton in Liverpool, the spinner may try to judge by the samples presented how much sand the cotton contains, but his best judgment may be wrong, and it will not be till the cotton is worked that he knows how much sand he has paid for at the price of cotton. In no case has he a remedy against sand, whether the cotton is purchased at Liverpool or in America. I have known concerns work for months without profit simply because cotton purchased abroad contained sand to such an extent that it had to be wheeled from under the machinery, weekly, in barrowfuls. I should not be overstating the truth in saying that Oldham purchases, at the price of cotton, thousands of tons of white and red sand every year. Perhaps a remedy may be found for this when we have discovered the perpetrators of the mischief, and the only practical remedy that I can suggest to this end is that it should be made compulsory to place the stamped name of the planter and packer inside and outside of every bale. This, I understand, is done to some extent now by at least one respectable firm. I also think it necessary to cause such accounts to be kept as will render every transaction easily traceable. If you should desire to go further into the question, I shall be glad to aid you in any way.

Yours truly,

SAMUEL ANDREW.

C.

(From Henry & Jno. Wm. Lees, New Royd Mill, Waterhead, near Oldham.)

NOVEMBER 28, 1881.

SIR: In accordance with our conversation on Friday last, we have had the two bales of cotton spoken of passed through our machine, and the result is as follows: 2 bales Mobile cotton DIX, No. 555, 495 pounds gross, 21 pounds tare, 474 pounds net invoice, 407 pounds weight of clean laps, 67 pounds pounds loss, 35 pounds sand; No. 553, 456 pounds gross, 21 pounds tare, 435 pounds net invoice, 384 pounds weight of cleaned laps, 51 pounds loss, 19 pounds sand, or 54 pounds sand in the two bales—equal to 7 per cent. on the weight of clean laps out of the same. The difference between the 54 pounds and 118 pounds entire loss on the bales has gone into the fanny pipe, hence we have not been able to save this. The sand we will forward after claiming for it from the seller.

Colonel SHAW,
United States Consul, Manchester.

D.

DAMP YARN.

To the editor of the Examiner and Times:

SIR: It is with amusement that I have read the series of letters addressed to the Manchester papers by our Oldham friends on the subject of damp cotton. I can assure you it would be quite refreshing to Manchester yarn merchants to hear honesty advocated and dishonesty exposed by Oldham cotton spinners, were it not so utterly absurd and hypocritical.

"Virtuous indignation about damp cotton, indeed!" I may say, without fear of contradiction and without exaggeration, that more than 50 per cent. of the yarns coming from Oldham bear the stamp of the corporation water-works to an extent which is in the highest degree dishonest.

I have not for many years experienced so much difficulty and anxiety in business as during the last six months. Not one out of ten lots of yarn delivered to Manchester shippers has been what it ought to have been, either in color, quality, or weight. I will not touch upon the first two points, though I could a tale unfold, &c., through spinners buying an inferior dark cotton, on account of its being cheaper, but I will confine myself simply and solely to the dampness.

I have a right to expect every 10-pound bundle to contain 9 pounds 14 ounces of yarn. I have my test-book before me of yarns delivered to me during the last fort-

night, and give you my experience of ten different Oldham spinnings as I have found them:

Counts.	Net weight on delivery.	Net weight after being cut open and exposed in a room 65° for 24 hours.	Net weight after being cut open and exposed in a room 65° for 48 hours.
	Lbs. oz.	*Lbs. oz.*	*Lbs. oz.*
30 mock	10 1	9 14	9 12
32 mock	10 0	9 13	9 10
32 mock	9 15	9 13	9 9
20 mock	10 2	9 14	9 10
20 mock	10 0	9 12	9 10
32 mock	9 15½	9 11	9 8½
30 mock	9 15	9 10	9 9
2-24	10 4	9 12	9 7½
2-30	10 2	9 11	9 8
2-32	10 0	9 10	9 8½

This is, as you will see, solely relating to bundle yarns. Cop yarns are quite as bad.

It is no wonder that with such increased consumption the Lancashire water supply is running short.

My foreign customers are beginning to find out what Oldham yarns are, or rather that they are part cotton and part water, and I am quite sure that nothing but absolute want drives them to this market. It is more profitable to the continental yarn consumer to pay foreign spinners ¼*d.* to ½*d.* per pound more for cotton yarn than to the Oldham spinner for his compound mixture, as the same expenses of carriage, freight, and duty have to be paid on the water as on the yarn.

The Oldham spinners have a perfect right to complain of the dishonesty practiced in America with raw cotton, but it strikes me their case before the American consul in Manchester would be a great deal stronger if they came into court with their own hands clean, instead of them practicing rascality much more flagrant than that of the American cotton exporter.

I think it is the Oldham spinners who are to blame in this matter by having commenced the practice of damping their yarn with water, evidently trying to prove that water is as cheap and plentiful in Oldham as in America.

I remain, &c.,

ANTI-COMPOUND MIXTURE.

SALMON AND SALMON CANNING IN BRITISH COLUMBIA.

REPORT BY CONSUL FRANCIS, OF VICTORIA.

Among the resources of British Columbia, that of salmon seems to demand some special notice, and therefore I have been at no little pains in getting data to follow up this industry of the province during the last ten years.

Probably in no part of the earth are salmon found in greater abundance and varieties than in the waters of the Northern Pacific coast. Of the varieties I shall only refer to two or three, being those which experience has proven to be of the better quality and most marketable—the *Saquai* and *Suck-kai* (so called by the Indians) and generally known by the name of the silver salmon. In weight, these average from 8 to 12 pounds, and are very fat, with the flesh of a deep red. They make their appearance from early in spring till late in the fall, and enter the rivers in May and June, on their way to the lakes and heads of streams where generated. At this period the canneries are opened for work, having previously prepared their cans and cases, and continue, some of them, day and night until the season closes, generally in October.

It is noticed that the salmon deteriorate on ascending the rivers, and by the time of reaching their spawning grounds are completely changed, being poor and colorless in flesh, bruised, and blind. After depositing their eggs, few if any such ever reach the sea again, the shores of the lakes and streams being literally covered with putrefying salmon, affording beasts and birds a great feast. The number meeting this fate yearly is estimated at many millions.

The first and last run of salmon taken in tide waters are held in higher estimation than the intermediate ones, and are preferred for canning. Beside the silver salmon during the season, there is the *Tyhee* (big salmon) and salmon trout, the former weighing from 15 to 40 pounds, fat and flesh of a rich pink color, the salmon trout from 10 to 20 pounds, also fat, but flesh of a lighter color—both used for canning.

The foregoing varieties, among others, are also found in the waters of Alaska, partaking of the same qualities, fully as numerous, and make their appearance about the same time. The salmon at Cook's Inlet, Alaska, are the largest and fattest on the coast; are caught there weighing from 30 to 100 pounds, and at certain seasons of the year its waters are reported alive with them.

There appears to be no limit to the salmon on the Northern Pacific coast, and the only matter to be considered in embarking in the business is a market.

The put up of salmon last season in this province is estimated as follows: canned, 130,000 cases; 2,000 barrels pickled; and 30 tons of smoked. The canned are in 1 and 2 pound tins, 50 pounds in a case; prices ranging from $4.75 to $5 per case; pickled, in barrels, $7; and smoked, 8 to 10 cents per pound.

The price of fresh salmon at the canneries when purchased of whites and Indians, who make it a business of taking them during the canning season, varies in different localities from 4 to 5 cents each, regardless of size, to $5 per ton. Several of the canneries have their own nets and employ fishermen by the day or month. The Indians take the salmon by various methods, their favorite one being traps, ingeniously constructed at tow tide on the flats, which prove quite as successful as the gill-nets used by the white men.

The labor of the canneries is performed principally by Chinamen and Indians, at from $30 to $35 per month. The cost of putting up salmon in cans and cases is said to range all along from $2.25 to $3.25, and pickled in barrels from $3.75 to $4, including the barrel.

The value of the export of salmon from the province, canned, pickled, and smoked, as near as can be ascertained, for the last ten years (England, Australia, and the Sandwich Islands being the principal markets), is as follows:

1872, pickled in barrels and smoked	$37,706
1873, pickled in barrels and smoked	43,361
1874 (first year of canning)	114,118
1875	133,986
1876	71,338
1877	105,603
1878	423,840
1879	633,493
1880	317,410
1881 (shipped and on hand)	675,000
	2,555,855

The business is increasing from year to year in the province. Three new establishments for canning were erected last season, two near the

southern boundary of Alaska. Their success exceeded expectations, and were obliged to suspend work before the season closed for the want of materials. The run of salmon on the coast last season was larger than known for years. This has been obsrved to occur every third or fourth year. In no year, however, has there been known any scarcity, though the time of appearing may vary one, two, and three weeks in different localities.

The coast of British Columbia and Alaska offer innumerable locations for the business, and will be taken up and improved as the demand for salmon increases.

ALLEN FRANCIS,
Consul.

UNITED STATES CONSULATE,
Victoria, British Columbia, December 1, 1881.

THE MANUFACTURE OF SWISS CHEESE.

REPORT BY CONSUL ADAMS, OF GENEVA.

The manufacture of cheese is one of the most ancient industries of Switzerland, instruments for this purpose having been found in different parts of the country among the ruins of the "lake dwellings," whose date is anterior to all historical records. In the fourteenth and fifteenth centuries the production had grown large enough to become the subject of legislation, as appears from some curious decrees of Berne, Glaris, Appenzell, and other countries, prescribing the form and weight of the cheeses, and forbidding the manufacture of certain sorts or any exportation to foreign countries. At the end of the last century the methods of manufacture were of the rude kind still in use among the mountains and in the remote districts, each household making what it needed without any special conveniences or skilled processes. The modern manufacture dates from the introduction, 80 or 90 years ago, of the cultivation of artificial fodder (*fourrages artificiels*), and the system of stabling cattle, now universal in the lower valleys and the plains. The improvement of quality created a wider demand at home and a new market in other countries, and to-day the better kinds of Swiss cheese are as much a product of skill and high art as the Swiss watch.

The several varieties are classified either according to consistency of material as *dur*, *ferme*, and *mou* (hard, firm, and soft), or, according to the proportion of fatty matter, as *gras*, *mi-gras*, or *maigre* (rich, medium, or thin), or, according to the coagulation, whether by rennet (*à présure*) or by sour milk (*à lait aigre*). Table A gives a description of the better-known varieties according to the qualities indicated, and Table B an analysis of selected specimens of some of the same varieties. With the exception of the *Vacherin* (*Mont d'Or*), which originated in France, and the Urseren from Italy, and a few imitations of foreign styles like the Limburg, all the kinds named here are native and peculiar to Switzerland.

The best and the most abundant of the Swiss cheeses is the *Emmenthal*, a round cheese, 80 to 100 centimeters in diameter, 10 to 15 centimeters thick, and weighing from 50 to 100 kilos or more. Like all the rich

cheeses (*fromage gras*), which retain nearly all the elements of the milk, its nutritive value is high. It was first made in the valley of the Emme in the canton of Berne, whence it followed the Bernese emigration into the neighboring cantons, where it is now made in large quantities, and into Bavaria, Russia, North Germany, and North and South America. The exportation began in the last century to Germany and Italy, and now it is sent everywhere, the principal markets being Germany, Russia, Italy, and the United States, where, I believe, it is known as *schweizer käse*. In winter a good deal of Emmenthal *migras* is made mostly for France, where it takes the place of butter.

Next in importance is the Gruyère, called after the village of that name in Fribourg; another round cheese 60 to 70 centimeters in diameter, 9 to 12 centimeters thick, weighing 30 to 45 kilos. It has come into great repute within the last ten years, since the formation of a wealthy society for its manufacture in Fribourg. It is also made in large quantities in Vaud and Neufchatel, and the French provinces of the Jura and the Doubs, where according to some writers it originated about 1750. It is manufactured in much the same way as the Emmenthal, except that a third or more of the cream is removed, whence it is classed as mi-gras. The exportation is mostly to France, Italy, and recently to South America.

The Spalen, so called from the manner of packing for shipment, is a cheese mi-gras, 45 to 55 centimeters in diameter, 8 to 10 centimeters thick, weighing 18 to 23 kilos, and made in a much ruder manner than the Emmenthal and Gruyère. It comes from Unterwalden, Uri, Schwyz, Lucerne, and the Burnese, Oberland, and is sent to Italy, where it is used grated (fromage dur à raper), with macaroni, rice, polenta, &c. It comes to perfection in two or three years. Another variety made for the Italian market is the Urseren, which comes from the higher pastures of the valley of that name. It resembles the cheeses of Northern Italy, as does the *Formaggio della paglia*, and the *Battelmatt*, both produced in the canton of Tessin. Most of these varieties are disagreeable to a palate unaccustomed to them.

The cheese of the canton of Appenzell, long famous for its fine cattle and excellent fodder, differs in certain qualities from all the other Swiss varieties. In making it the curd is triturated in a brassoir, molded without pressure or salting, and finally treated with a brine of water, wine, lees of white wine, pepper, and salt, which gives it a pungent odor and flavor, something between the Swedish and Italian cheeses. The exact formula for the brine is supposed to be a secret, and, as with most of the Swiss cheeses, the processes of manufacture is only to be learned in its own country, where the traditional methods have been handed down for generations. The Appenzell is a cheese 25 to 30 centimeters in diameter, 12 to 15 centimeters thick, weighing 7 or 8 kilos, and is exported to all neighboring countries, but mostly to Suabia.

Still more remarkable is the *Schnabziger*, or green cheese (*fromage vert*) known, I believe, in the United States, under the corrupt name of of sago or sapsago, and which some writers hesitate to class as a cheese. Its manufacture dates back to the ninth or tenth century, and it is still the most famous product of the canton of Glaris, which turns out a great many other varieties, mostly *mi-gras* and *maigre*. The peculiarity of the Schnabziger is due partly to the method of coagulation by azi instead of rennet, and partly to treatment by the *zigerlee*, (melilotus cœrulea) a plant grown for the purpose in Schwyz. In 1869 the expor-

tation amounted to 1,250,000 kilos, valued at 750,000 francs. It is sent all over the world.

The foregoing are all export cheeses, principally consumed out of the country. The variety manufactured for home consumption is endless. Some of them are of great excellence, but will not bear transportation. The following may be recommended to the attention of importers in the United States:

The *Gessenay*, made in the high pastures about the village of that name in Berne and elsewhere in the Oberland. It is a cream cheese (*gras*) of fine and aromatic flavor, very hard, and keeping well for many years. Its nutritive value is high, and it should be used like the spalen or parmesan, grated with soup, macaroni, &c. A similar cheese is made in the canton of the Valais. This is perpaps the richest of all the Swiss varieties, and has a peculiar flavor of its own. The process of manufacture has greatly improved since 1872. Less durable but equally nutritious and palatable, and of the same general character, is the *cristallina*, made in the valley of Medels Grisons.

The *Vacherin* is the only soft cheese of large size made in Switzerland. There are two sorts, the first made about Gruyère, and in appearance like the cheese of that name; the other is made in the valleys of the Jura. The latter is 25 to 30 centimeters in diameter, 4 to 6 centimeters thick, and weighs 3 to 5 kilos. It is sold in drums, and if perfectly mature has an exquisite flavor. The *Mont d'Or* of France is the same as the Vacherin of the Jura.

Some of the Swiss papers have rather ridiculed a suggestion in one of my previous reports that a market might be found here for American beer, cheese, and butter. In the matter of cheese, the competition of the imported article would be with none of the foregoing kinds, some of which have little or no sale in the country, and some are in demand for the special qualities, but with the ordinary kinds made everywhere in great abundence for home use and largely taking the place of butter, and even of meat. I believe that a good American article that could be put on the market here at 150 francs the kilo would find a sale.

A.—*Quality of different Swiss cheeses.*

	Consistency.	Fatty matter.	Coagulation.
Emmenthal	Firm	Gras	By rennet.
Gruyèré	do	Mi-gras	Do.
Spalen, old	Hard	do	Do.
Spalen, new	Firm	do	Do.
Urseren	do	Gras	Do.
Formaggio della paglia	Soft	do	Do.
Battelmatt	Firm	do	Do.
Appenzell	do	Maigre	Do.
Gessenay	Hard	Gras	Do.
Cristallina	Firm	do	Do.
Vacherin	Soft	do	Do.
Bellelay	Firm	do	Do.
Valais	Hard	do	Do.
Practtigau	Firm	Maigre	Do.
Vaud	do	do	Do.
Tomme	Soft	Gras	Do.
Schuabziger			By sour milk.
Blocler	Firm	Maigre	Do.

A *fromage gras* or cream cheese is of unskimmed milk; *maigre* of skimmed milk; mi-gras, of partly skimmed milk.

B.—*Analysis of Swiss cheese.*

	Emmenthal.	Gruyère.	Bellelay.	Gessenay.	Vacherin.
Water	34.92	34.57	37.59	12.40	27.21
Fatty matter	31.26	29.12	30.05	34.35	45.87
Caséine	29.88	32.51	28.88	46.80	25.29
Salts	3.94	3.80	3.48	6.45	1.63
	100.00	100.00	100 00	100.00	100.00
Fatty matter	41.1	47.3	51.	42.4	51.8
Caséine	48.90	52.7	49.	57.6	48.2
Total	100.00	100.00	100.00	100.00	100.00

C.—*Exportation, in metric quintals, of Swiss cheese,* 1810 *to* 1880.

	m. q.		m. q.
1810	6,000	1870	169,860
1825	10,000	1871	206,707
1860	73,395	1872	192,715
1861	83,428	1873	196,026
1862	86,020	1874	204,336
1863	83,608	1875	198,631
1864	92,717	1876	200,907
1865	126,807	1877	177,990
1866	125,522	1878	195,799
1867	148,386	1879	210,174
1868	141,869	1880	217,189
1869	162,446		

[The metric quintal=100 kilos.]

D.—*Importation and exportation of cheese,* 1877 *to* 1880, *in metric quintals.*

	Importation.		Exportation.	
	Quantity.	Value.	Quantity.	Value.
	*q. m.**	*Fr.*	*q. m.*	*Fr.*
1877	13,684	2,189,600	177,990	32,038,200
1878	13,871	1,871,940	195,799	31,327,840
1879	12,112	1,574,560	210,174	31,526,100
1880	13,254	1,723,020	217,189	34,750,240

* Metric quintal=100 kilos.

E.—*Prices per* 50 *kilos of different varieties of Swiss cheese from* 1851 *to* 1880.

	Emmenthal.	Gruyère de Montagne.	Gruyère de la plaine.	Spalen.
	Francs.	*Francs.*	*Francs.*	*Francs.*
1851	52	42	40	35
1852	48	40	38	35
1853	52	46	45	37
1854	56	47	45	39
1855	58	51	49	40
1856	57	50	48	41
1857	61	53	51	49
1858	62	54	53	51
1859	66	54	55	49
1860	70	54	52	50
1861	57	54	52	49
1862	56	51	47	53
1863	67	53	50	54
1864	68	59	59	57
1865	65	55	54	56

E.—*Prices per 50 kilos of different varieties of Swiss cheese, &c.*—Continued.

	Emmenthal.	Gruyère de Montagne.	Gruyère de la plaine.	Spalen.
	Francs.	*Francs.*	*Francs.*	*Francs.*
1866	56	49	45	50
1867	66	48	53	48
1868	71	59	57	61
1869	75	60	57	69
1870	66	62	59	71
1871	77	67	66	57
1872	85	71	70	67
1873	93	74	73	77
1874	75	60	55	78
1875	90	62	60	59
1876	90	79	78	69
1877	90	76	77	82
1878	76	62	60	60
1879	75	63	63	60
1880	85	79	78	73

F.—*Highest quotations of cheese in different Swiss markets per kilo for October*, 1880.

Description.	Morges.	Nyon.	Vevey.	Yverdon.	Moudon.	Payerne.	Neufchatel.	Sion.	Geneva.	Fribourg.	Bulle.	Delemont.
Fromage gras....francs..	2.00	2.00	2.40	2.00	2.00	2.00	2.00	1.30	2.20	1.00	1.75	2.00
Fromages maigre..do....	1.20	1.30	1.60	1.10	1.40	1.50	1.40	0.90	1.25	0.40	1.10	1.50

LYELL T. ADAMS,
Consul.

UNITED STATES CONSULATE,
Geneva, November 25, 1881.

NAVIGATION AND COMMERCE OF BAHIA, BRAZIL.

REPORT BY CONSUL PRINDLE.

On assuming charge of this consulate I found the state of our trade in this part of Brazil at a very low ebb, and the reverse of flattering to American manufacturers and merchants. I say at a low ebb, because some years ago we did some business with Bahia, it being in those days not uncommon to see five, six, or more American vessels at one time lying at anchor in this harbor discharging and loading goods from and to the United States, while now the entrance of an American vessel at this port is an event. I suppose this decline in our shipping may be attributed to a considerable extent to the same general causes that have been operating so disastrously to our shipping interests for many years.

But another cause has been working largely here which has also operated to produce a decline in the volume of imports from the United States almost to such an extent that importations from there are narrowed down to but little else than flour and kerosene oil. I refer to the fact that for many years there has been no representative American commercial house in Bahia.

It appears to me that nothing can be more natural than that a decadence in one of the above interests should be followed by a decline in the other under such circumstances.

In the days I speak of there was an American house here, that of J. S. Gilmer, who was for a number of years United States consul at Bahia, and to which many of the vessels were consigned.

It would seem to be a rather remarkable fact that in a city of more than 200,000 inhabitants, which was for a century or more the capital of an empire embracing nearly half the area of a neighboring continent, and is still the capital of probably the richest province in the Brazilian Empire, abounding as it does in mines of gold, diamonds, and other precious stones and metals, having also a large area of most fertile soil, producing coffee, cocoa, sugar-cane, tobacco, &c., the citizens of which depend largely on foreign countries for products and manufactures, in the production of most of which articles our country especially excels, and the people of which appear to entertain a very friendly regard towards the United States, that it can virtually be said there are in Americans in the place.

There is much competition here between the English, German, French, and Portuguese merchants, all of whom are naturally adverse to the advent of American rivals. Therefore merchandise from the United States is found, or most generally represented to be, inferior in quality, or if this can be disproved, then the price is high, or it is badly packed, &c.

Unquestionably there exists here a large field for the extension of American commerce, but I feel satisfied it will be a long time before that can be brought about unless we shall be represented by a first-class American house or houses to exhibit, defend, and push our products and manufactures, the members of which, both principals and clerks—the latter should be Americans also—must have a good knowledge of the Portuguese language.

With this qualification, of course, a thorough business man would soon become familiar with the business methods of the place, peculiarities of tariffs, &c. Credits have to be given—that is to say, that is one of the features of the commercial system in vogue here—but business is generally conducted on a sound basis, and failures are of rare occurrence. Commercial travelers do no good. In the first place, they must sell for cash; then the people seldom care to buy from sample; and again some of the travellers are reputed to have acted with bad faith in certain transactions with parties here, and in consequence all of them are discredited. Another most powerful factor to very largely increase the trade between the United States and all South America would be the establishment of lines of steam vessels under our flag. I quite agree with all of our consuls who have written on this subject. Without exception, so far as I have seen, they advocate the extension of government aid to certain lines of such vessels. I believe some millions could be so employed with immense advantage to the general interests of the American people. With a reduction of taxation on our vessels, and government aid for a few years to certain main lines, it cannot be doubted that many of them in that time would become self-sustaining. But without such assistance, such is the start and foothold already obtained by European lines to South America—most of them, I believe, heavily subsidized—and such the timidity of capital, that Americans must be deterred from attempting a contest so apparently hopeless, and their flag in those waters become permanently a thing of the past.

Some twenty-five large ocean steamers belonging to British, German, and French lines touch at Bahia every month on their way forward and backward to other ports on this coast, all discharging or loading more or less cargo on arrival at each port.

If Congress shall change from its past policy and appropriate some

of the public money for the purpose here suggested, and an American line shall be again established to run to the Brazilian ports, I respectfully beg to suggest that its vessels should not exceed a draft of water that would enable them to approach the city of Pará, go inside the reef at Pernambuco, and call at other ports, if required, or if business and profit shall in time become apparent. And there should be at the commencement two steamers per month.

To compete successfully with the lines mentioned, the steamers should be built and manned especially with a view to economy, safety, and comfort. Some years will elapse before there will be any considerable passenger traffic between the United States and Brazil; therefore no heavy outlay should be made in constructing the first vessels to provide for such. Beyond doubt Bahia occupies naturally a very healthy position. There is a great lack of proper sewerage and drainage and a need of other sanitary reforms; but these will come by and by.

It appears to me that some American public spirit is greatly needed in the place.

A. C. PRINDLE,
Consul.

UNITED STATES CONSULATE,
Bahia, Brazil, August 15, 1881.

THE CULTURE OF JUTE, LINSEED, COTTON, &c., IN EGYPT.

REPORT BY CONSUL-GENERAL WOLF.

I.—JUTE.

The jute of commerce is the product of two plants belonging to the order of Tiliaceæ, one of which is identical with the Egyptian pot-herb known under the name of Melonkhiah, the fibrous properties of which, although entirely unsuspected by the modern Arabs, were apparently known to the ancient Egyptians; and it is very probable that the plant was introduced into India from Egypt.

The cultivation of jute is at present practically confined to the eastern district of Lower Bengal, where it has assumed vast proportions since the period of the Crimean war, when the limited supplies of flax-hemp from Russia compelled Dundee manufacturers to resort to jute as a substitute; and since that period the consumption of the fiber, nearly all over the world, has been steadily increasing.

Jute is by far the cheapest of all fibers for textile purposes; but it is chiefly used for the manufacture of those coarse sackings which aid so very materially in the national interchange of commodities that is annually assuming larger and larger dimensions.

But production in Bengal, notwithstanding an enormous advance in the rupee value of the article, appears of late years to have reached its maximum, whilst the quality of the jute has been steadily deteriorating; and as the crop is wholly dependent on the rainy monsoon, the manufacturers of Dundee have for some years recognized the danger of having only one uncertain source of supply of the raw material for an industry that has how attained such large proportions.

Accordingly an association was formed in that city with the object of promoting the culture of jute in Egypt, where a wet, alluvial soil, hot climate, and cheap labor present the same conditions as in Bengal, and

for the last two years Mr. William Grant, the representative of that association, who has had long years of experience of jute in India, has been endeavoring to introduce the new culture into the land of the Pharaohs.

Some small tentative experiments made last year abundantly convinced him by the fine quality of jute produced that the soil and climate of Egypt are especially adapted to the object in view; and this year he has placed the matter beyond all dispute by producing a few hundred bales of jute of a quality far superior to that from Bengal.

But in conducting his experiments, Mr. Grant has had to contend against endless obstacles growing out of the prejudices and ignorance of the natives; and although he has brought Bengalee coolies to teach the proper method of culture and preparing the fiber, the fellahs are slow to learn.

The mere cultivation of the plant is very simple and entails little trouble or cost. The seed is sown broadcast in March and April, and matures in 3½ to 4 months. It is in the macerating process that he has encountered the greatest obstacles, for the native Egyptians have not yet acquired the manual dexterity in separating the fiber expeditiously and economically.

But a simple and ingenious machine, the invention of Mr. Alfred Garwood, of the Egyptain railways, promises to solve the difficulty in the future, for it quickly and effectively separates the bark from the stems, and a few days of maceration complete the preparation of the fibre.

This happy invention, which Mr. Garwood keeps secret till he can get it patented both in Great Britain and the United States, seems to insure the future success of jute culture in Egypt.

II.—LINSEED.

Mr. Grant is also introducing the culture of linseed, which in Bengal succeeds jute as a winter crop; and as the soil and climate of Egypt are eminently adapted to the purpose, he anticipates satisfactory results. Although these new introductions are still in their infancy, they promise to become of importance to America, which at present receives all its supplies of jute and linseed from Calcutta.

III.—RAMIE.

This plant belongs to the family of nettles, and will grow in Egypt on the banks of the Nile, the canals, and of the ditches around the fields. Yet a Syrian gentleman, Mr. Moses Ades, has brought from France about 2,000,000 ramie cuttings, and has himself superintended their plantation over about 250 acres of the best soil of the Fayoum province of Middle Egypt, which land has been placed at his disposal for the purpose by three gentlemen—Nasrallah Luca, Moussa Mazar, and M. Mondolfo, who have leased for a term of years about thirty thousand acres of the so-called Domain Land, that are mortgaged by the Egyptian Government for the payment of interest and capital on the Rothschild loan, and sublet the greater part of the same to the peasantry. Mr. Ades is quite sure that before many years have gone by, the growing of ramie in Egypt, will to a great extent, supplant that of cotton.

IV.—COTTON CULTURE IN EGYPT.

While prosecuting his experiments in jute culture during the past and present year, it became a part of Mr. W. Grant's duty to examine

the general question of Egyptian agriculture, for the purpose of ascertaining the relative pecuniary returns, per *feddân* (acre), of the different crops raised in the delta and comparing them with the anticipated returns from jute. During his investigations he naturally devoted special attention to cotton, with which previous experience had made him familiar; and having acquired in his frequent journeys and during his residence in the interior of Egypt much valuable information in this respect, he arrived at certain conclusions as to the position and future prospects of this culture which he thought not unworthy of the consideration of every one interested in the material welfare of this country.

These conclusions, together with certain remedial suggestions, Mr. Grant has put into a pamphlet, which he has published in the Arabic language and distributed to land-owners throughout Egypt. In that pamphlet he says as follows:

It is proper first to observe that the information on which his conclusions are based has been acquired from every available practical source in Egypt, and has been supplemented and subjected to modification by his personal observations and former experience elsewhere. In addition to the testimony of native landholders and of gentlemen practically engaged in the management of land and in cotton culture, the general testimony of many merchants and cotton selectors in Alexandria serves to confirm the substantial accuracy of his statements and conclusions.

His propositions are broadly—

1st. That from the continual cultivation of cotton, the soil of Egypt has become deteriorated;

2d. That the manures now applied, and the limous deposits of the Nile, are inadequate to restore the reproductive capacity of the soil, exhausted by cotton;

3d. That consequently the yield of "cantars" (quintals) per *feddân* (acre) has seriously decreased, as compared with former times; and

4th. That Egyptian cotton has degenerated in quality.

The cotton plant, says Mr. Grant, is, according to the experience of all countries where it is cultivated, extremely exhaustive of the soil. Egypt is no exception to the general rule, and its soil is by no means so inexhaustible as it is popularly believed.

When cotton cultivation in Egypt began to assume important dimensions, at the period of the American rebellion, the average return per feddân (acre), according to the best information he has obtained, seldom averaged less than about 6 cantars (quintals), and of a quality superior to what is now produced.

In an article published in the journal of "l'Institut Egyptien," in 1862, by M. Grégoire, the decrease in cotton per feddân (acre) is dwelt upon even at that early period, and he adds that—

> When cotton cultivation is introduced into a new district the yield for the first years is superior in quality, but gradually grows poorer after a certain lapse of time.

In the early years of the cultivation, probably the best land was devoted to cotton; and that may account in some degree for the large returns per feddân, and the superiority of the quality. But the same land now yields a much smaller return and of less superior quality.

Since the period in question, 1862, the area of land under cotton cultivation has steadily extended till it now reaches, according to rough computation, about 1,000,000 feddâns (one million acres), and the average return per feddân is estimated at about 3 cantars (3 quintals), or one-half the quantity in the early years of the cultivation.

Conflicting opinions prevail as to the extent to which the deterioration of the soil has proceeded, and also as to the decrease in quantity and falling off in quality. But of the broad facts of the case, whatever be the degree, no doubt seems to be entertained.

A native moufettish (overseer), who has the management of 12,000 feddâns of land not far from Mansourah (in Delta), states that the soil has unquestionably deteriorated from cotton cultivation, and that of late years the produce from cotton cultivation per feddân has decreased fully one-half.

Another moufettish (overseer), a European, of fifteen year's practical experience, who manages 6,000 feddâns of land, states (1) that the land has certainly deteriorated from cotton cultivation; (2) that the defective manure now applied and the limous deposits of the Nile are quite inadequate to restore the reproductive capacity of the soil and return the constituents the cotton plant takes out of it; (3) that the quantity of cotton per feddân has certainly diminished, and that the best lands in the province of Gharbieh, which in former times gave 5 or 6 quintals per acre, do not to-day give more than 2 to 3; (4) that in his opinion quality has degenerated; chiefly, however, because no care is bestowed on the selection of the seed, and because different varieties are often sown together on the same land.

Testimony of a similar kind could be multiplied; and Mr. Grant merely cites the foregoing as fairly illustrative of the general opinion prevailing on the points in question.

No doubt instances may be met with here and there where intelligent cultivation realizes more fruitful results; but these are the exceptions and scarcely affect the general conclusion.

The reason for this deterioration of soil, says Mr. Grant, is not far to seek; it is entirely the consequence of the method—or rather want of intelligent method—persistently followed in Egypt, and he proceeds in his pamphlet to show this by the following reasoning:

A feddân (acre) of land, besides the fiber, yields about sixty quintals weight of cotton-wood, and 6 to 8 quintals of seed; not one handful of which is returned to the soil.

The wood, in a spirit of false and shorted-sighted economy, and owing to the great scarcity of fuel, is employed for heating purposes for the steam irrigating pump, or sold; and even the ashes, which are a valnable manure, are left to go to waste. The seed is all exported. The land is unmercifully robbed; and the only compensation bestowed upon it is the application of some animal manure, sometimes mixed with nitrous earth, out of which, however, the best of its fertilizing properties have been desiccated by long exposure on the dung-hill to the rays of a burning sun in a dry climate, and which is in a great measure destitute of the chief constituents that a cotton crop takes out of the soil.

No great knowledge of the principles of agricultural chemistry is required to convince one of the impoverishing effects of such a method of cultivation. But, we are told by certain persons, the limous deposits of the Nile are amply sufficient to restore the reproductive capacity of the soil exhausted by cotton.

No one disputes the fertilizing properties of these deposits, nor that, when a good (high) Nile occurs, they contribute materially to increase the produce of the soil—especially of cereals. The Nile deposits, however, at the very best, do not at the present day return in sufficient degree the chief constituents taken out of the soil by a cotton crop.

In ancient times, and indeed up to the time of Mohammed Ali, the Nile valley at high flood became a vast lake; and the covering of rich

slime then deposited on the surface of the land was enough to produce abundant crops of cereals, which were then chiefly cultivated; so-called summer crops, as at present, were practically unknown. The hereditary belief in the virtues of the Nile deposits, and which dates from the remotest times in Egyptian history, fondly dwells on the days when the valley of the Nile sustained a population of 8,000,000 to 9,000,000, and had still a surplus for export. But it fails to recognize the silent revolution in agriculture created by the introduction in recent times of irrigating canals. Spread like a vast network all over the country, these winding canals—made tortuous so as to lessen the force of the current—while regulating the distribution of the water and enabling summer crops to be cultivated, also serve to arrest the force of the current, and a large proportion of the soil held in suspension is thus given time to settle in the beds of these channels. There it is left to accumulate uselessly till necessity compels the ministry of public works to evacuate it on either bank of the canals, where it is incomprehensibly left to waste its virtues on the desert air, whilst the adjoining fields are in so great need of its richness.

The muddy water of the Nile is therefore at the present time despoiled in a very material measure of its fertilizing properties before it reaches the surface of the land; and the further it travels laterally from the river bank, the more filtered it becomes.

And in this connection it must be borne in mind that the ancient ruins from which the nitrous earth, now so much used as a manure, is taken, are becoming rapidly exhausted, and cannot be replaced. This is a seriously important consideration in a country where animal manure is so scarce.

Under the combined action of an exhausting cotton crop, inadequate manure, and a diminished supply and quality of Nile deposit, the soil of Egypt has become improverished, and if this land is to maintain its position as a cotton-producing country the sooner this fact is recognized, says Mr. Grant, the better will it be for all concerned.

The first step toward the removal of an evil is to admit its existence, however unpalatable, and look it boldly in the face; the next is to seek for and apply the remedy that has been found efficacious elsewhere; and under such circumstances Mr. Grant naturally turns for guidance to America, the great cotton-producing country of the world, where the cultivation of this plant is conducted with the greatest intelligence and success. But it is just to Egypt to say here that in the "*good old times of slavery*" the American planter was as intolerant and averse to innovations on the ancient methods of cultivation as the peasant and landowner in Egypt are to-day. With an abundance of cheap virgin soil and high prices of cotton, the American grower relied for increased production on extension of area cultivated rather than on stimulating the reproductive capacity of his old worn-out soil, and it is only within the last few years that necessity has compelled him to adopt scientific methods of cultivation, because for several years after the war of secession, from 1860 to 1864, owing to the sloth and demoralization of the newly-freed slaves, the crop did not average more than about 2,500,000 bales a year.

But since then a new generation has arisen in the United States, which, forgetting the prejudices of the past, has gradually brought to bear on the growing of cotton every new mechanical invention in farm implements and every discovery in agricultural chemistry. By the use of improved implements, the cost of production has been materially re-

duced; and by the application of artificial fertilizers to all old lands, the yield per acre has been greatly increased.

It is, however, only within the last few years, says Mr. Grant to his Arab readers, that the vast importance of artificial fertilizers has begun to be realized even in the United States; at first it was only the most intelligent and enterprising who made use of these manures. But the results in most cases were so encouraging that the employment of these manures on all old lands has been rapidly extending, and the consequence has been a rapid increase in production per acre, as the following figures, which he sets before the readers of this pamphlet will show. The crops which had been in the United States gradually decreasing in the few preceding years amounted, in 1876–'77, to 4,485,000 bales; in 1877–'78, to 4,811,000 bales; in 1878–'79, to 5,074,000 bales; in 1879–'80, to 5,757,000 bales; estimated in 1880–'81, to 6,605,000 bales; and the crop now on the ground (he writes in July, 1881) is variously estimated at 7,000,000 to 7,100,000 bales.

This remarkably rapid increase in production is of course partly owing to extended cultivation; but by the Americans themselves, he states, it is mainly attributed to the more general use of fertilizers, which have stimulated the reproductive capacity of the soil. A Liverpool merchant, closely connected with American commerce, wrote to Mr. Grant lately as follows:

> I conclude from all I hear that the use of fertilizers has a most wonderful influence on the cotton production of the States. Not only does it increase the productive capacity of the plants, but it hastens the maturity, and so renders the crop less subject to injury from frost and storms.

But in addition to artificial manures, Mr. Grant informs the Egyptian grower that the American planter utilizes, for fertilizing purposes, cotton-wood and seed, of which the soil is robbed in the land of Egypt. The wood he burns or crushes and plows it deep under the surface of the earth; in the former case the ashes, while fertilizing the soil, serve also to destroy in their chrysalis state all noxious worms and insects; and in the latter case the crushed wood decomposes, furnishing a manure which tends to air the land and render it less heavy. And as the soil of Egypt is very tenacious it would benefit specially by such treatment. As for the seed, it too is crushed by the American planter and returned to the soil as manure. And over and above all this there is so much of the artificial fertilizers as referred to above.

Besides, in America great care is bestowed on the selection of the seed for sowing, and it is, moreover, frequently changed. The plants, too, stand much farther apart than in Egypt, sometimes as much as five feet, the object being to admit as much air as possible to circulate round the shrub, and also sunlight; both important factors in the development of the cotton bolls. When the plants reach a certain height the tops are in America cut off. This prevents all further unprofitable upward growth, and directs all the growing power into the side branches near the earth, which are thus forced to bear more fruit.

In Egypt a cotton field at maturity resembles a dense jungle, into which neither air nor the rays of the sun can scarce penetrate, and it would almost seem as if, owing to the scarcity of fuel in this country, the chief object sought to be gained by the planter is to secure the largest possible growth of wood and foliage, and not cotton-fibre.

The foregoing are some of the means by which the Americans have realized the remarkable results above referred to; and Mr. Grant tells the Egyptians that if their country is to hold its own in cotton growing they must adopt similar means. He states that under the improved

method of cultivation now practiced in the United States cotton can be grown at a cost of about 3*d.* per pound; and that the present price of "mid. Orleans" 6⅛*d.* per pound, thus giving a profit of over 100 per cent.; and if the cost of production be approximatively correct a steady further increase in the American crop may be looked for, accompanied not improbably by a further decline in prices.

Such is the aspect of the question, to which Mr. Grant in his pamphlet invites the most serious consideration of the people and government of Egypt.

The American planter has an unlimited supply of cheap and practically untaxed land, which he carefully cultivates with the aid of all modern appliances in mechanics and agricultural chemistry; and he possesses, in addition, untiring energy and great intelligence.

The Egyptian planter has dear and heavily-taxed land, costing all the way from $50 to $160 per acre, and taxed from $4 to $7.50 per acre, which he cultivates imperfectly, and with mechanical appliances of the rudest kind, dating from the days of the Ptolemys.

American cotton culture is healthy and progressive; ready to take advantage of every improvement and invention calculated to economize the cost of and increase production; and the *average yearly addition to the crop* is largely in excess of the entire Egyptian production.

In Egypt cotton growing is stagnant or retrogessive, and notwithstanding the continual extension of the area of land under cultivation, production does not increase in proportion; and the crop just closed is less than that of last year.

The American crop of 1881-'82 will amount in value, probably, to about $400,000,000. The Egyptian crop for the same season is not likely to exceed $40,000,000.

And yet if the American methods of cultivation, as above set forth, were adopted in Egypt and intelligently applied, Mr. Grant thinks there is no reason to doubt that this country could maintain its ground with America, and even excel the latter in quality. Egypt is gifted by nature with a better soil than that of the Southern States of the Union; it has a climate more suited to cotton culture; it has cheaper labor; and it has abundance of water when, and to the precise extent, required by the cotton plant.

If the American methods of culture were adopted in Egypt the same fruitful results Mr. Grant thinks would followas in America; and having regard to its natural advantages, he firmly believes that Egypt, in a comparatively brief period, might double its exports of cotton without extending the area of cultivation.

Nor would the benefit end there, for much of the land annually left in so-called fallow, but which really often bears crops of noxious weeds, would admit, with the aid of fertilizers, of continual cultivation, as is now the case in the United States.

The annual cost of fertilizing need not exceed, according to Mr. Grant, 30*s.* to 35*s.* sterling per feddân; and this estimate admits of material reduction if the *animal bones*, which abound in Egypt, should be made on the spot into superphosphates, which are especially efficacious in restoring the reproductive capacity of heavy alluvial soil, such as that of this country when exhausted by cotton.

It is claimed in America that by the use of fertilizers production per acre has been increased in some cases two-fold. Assuming that on land now yielding in Egypt 2 to 3 quintals per feddân the produce were increased to 4 to 6 quintals, the cost of fertilizers would seem trifling in comparison with the additional profit. Mr. Grant tells the people

and government of Egypt that a singularly favorable opportunity for acquiring an accurate and detailed knowledge of American methods of culture presents itself at this time in the International Cotton Exhibition, on a large scale and the first of the kind ever held, namely, that of Atlanta, Ga., the very center of the cotton States, the chief object of the promoters being to bring together everything relating to or bearing on cotton.

What is specially required in Egypt is practical information about the various artificial manures, which are producing such remarkable results in the United States, their costs, manner, and degree of application to the soil per acre; also the best kinds of seed to introduce, as well as all the minor articles of American planting.

Considering the high importance to Egypt of the question now in review, and the many millions of dollars annually involved in a proper solution of it, he thinks that the Khedive's government could do no wiser thing than to depute to the Atlanta International Exhibition a properly qualified person to examine and report on every detail likely to be serviceable to Egyptian agriculture.

It may be here added that Mr. Grant says of the Americans that many months ago they procured from Egypt specimens of its soil, and of the different kinds of cotton cultivated, for the purpose of comparison and exhibition.

According to the statistical tables of Messrs. Moss & Co., at Alexandria, on the trade of Egypt, the total value of all exports in the past two years was as follows:

	1879.	1880.
Value of all exports	£13, 783, 650	£13, 316, 105
Of which cotton and cotton seed	9, 676, 657	9, 257, 007
Of this balance there were	4, 106, 993	4, 059, 098
Cereals, flour, &c	2, 557, 033	2, 289, 552
Balance over	1, 549, 960	1, 769, 546
Of this balance there were	1, 549, 960	1, 769, 546
Sugar and molasses	696, 095	769, 859
All other products	835, 865	999, 687

From these figures, taken from the custom-house returns, and therefore approximately correct, it will appear that the total exports of Egypt are—

	Per cent.
Cotton and cotton seed, about	70
Cereals, flour, &c., about	18
Sugar and molasses, about	6
All other exports, about	6
	100

The proper growing of cotton is therefore for Egypt a question of vital importance, and yet neither the government, the large and wealthy landowners, nor the peasants pay much heed to the eloquent and convincing reasonings of Mr. Grant. They go on in the old happy-go-lucky way to which they are accustomed.

SIMON WOLF,
Agent and Consul-General.

UNITED STATES AGENCY
AND CONSULATE-GENERAL,
Cairo, Egypt, November 22, 1881.

ANILINE CHEMISTRY.

REPORT BY CONSUL MASON, OF BASLE.

THE MANUFACTURE OF COLORS AND FLAVORING EXTRACTS FROM THE PRODUCTS OF COAL-TAR AND PETROLEUM.

The records of this consulate show that the exports of aniline colors from this district to the United States during the past quarter amounted to 278,041.37 francs, an increase of 90,737.34 francs as compared with the returns for the same quarter of last year. As has been repeatedly stated in these reports, the trade in aniline products is the one branch of manufacture and commence that shows a constantly increasing vitality and importance. The exports of ribbons and watches, silk tissues and cheese, vary with the changing seasons and fluctuating markets; the shipments of the wonderful dyes, which the skill of modern chemists has evolved from bituminous tar, show a steady and uniform increase.

Other branches of manufacture are mature and fully expanded; the aniline marvel, like electric illumination, is in the full vigor and interest of rapid and profitable development. It offers a field in which new discoveries are of enormous value, and in which intelligent energy, backed by competent capital, can hardly fail to command financial success.

For these reasons, and because the United States offer peculiar advantages for aniline manufacture—by reason of the abundant materials which they possess—I have thought proper to add something more comprehensive and complete to the several brief suggestions already submitted on this subject.

Aniline colors are manufactured by treating one or more of three substances, viz, benzole, anthracine, and napthaline, with salts of copper, salt, and other chemicals and acids, under various conditions of pressure and temperature. The benzole, anthracine, and napthaline are obtained from the decomposition of coal-tar in the following proportions:

From 100 pounds of coal-tar there are derived:

Benzole	2½ to 3 pounds.
Anthracine	½ to ¾ pound.
Napthaline	6 to 8 pounds.

There are thus derived from each 100 pounds of tar from 9 to 12 pounds of products available for the purposes of aniline manufacture. Of these the most important is benzole, which is composed of twelve parts of carbon and six of hydrogen. It, therefore, offers the two fundamental elements in proportions which, when combined with other elements by chemical processes, produce a great variety of brilliant coloring matters and practically perfect substitutes for numerous organic materials of large commercial value.

Thus far in Europe the distillation of coal-tar and the manufacture of aniline colors have not been combined by any one establishment. The manufacture of aniline materials from the tar is one branch of business; the production of colors from these materials is quite another. Aniline color makers prefer the English benzole as being more rich and productive, although benzole is largely manufactured in France and Germany. The English product costs in London from $1 to $1.10 per gallon; that made on the continent is somewhat cheaper.

From anthracine, the second product of coal-tar, is manufactured

alizarine, the substance which has almost entirely superseded madder and destroyed the profitable culture and sale of that comparatively expensive vegetable dye-stuff throughout the world.

From napthaline is made the beautiful variety of light albo-carbon colors, so important in the repertory of modern dye-stuffs.

There are now manufactured in the four large aniline color laboratories within the district of Basle between forty and fifty different dyeing materials, which are variously used for coloring silks, cotton, leather, and other substances, as well as for the manufacture of colored writing and printing inks. Many of these colors are readily soluble in water and unite perfectly with the goods without the use of a mordant; others are soluble in alcohol or water impregnated with acids, and still others require the use of mordants to render the color clear and permanent. The strength or coloring capacity of some of these dyes is wonderful, a single grain or crystal of the solid pigment being enough to make a dye sufficient to color a large quantity of textile material. Another noticeable quality is the superior affinity of the aniline color for the fabric to be dyed. This is so positive that in many aniline dyes repeated immersions of silk, cotton, or wool take up the whole amount of color, leaving the water or spirit in which it was dissolved almost transparent and pure.

For the more complete information of the department, and to illustrate how a whole gamut of gradually deepening tints and shades can be produced from one color by simply increasing the strength of the dye or adding certain chemicals, there are inclosed as a supplement to this report—

1. Samples of sixteen principal aniline coloring substances, viz, safranine, erythrosin, fuchsine, malachite green, scarlet, acid green, alkali blue, methyloidet, eosine, gray, methyl blue, orange, cotton blue, opal blue, sienna brown, aniline indigo.

2. Samples of thirty-three shades and tints of silk colored with aniline dyes.

3. Sixty samples of colors on woolen yarns, adapted to all kinds of weaving, knitting, and embroidery.

4. Samples of eleven shades of gray, blue, and brown wool dyed with different combinations of one material, viz, the recently discovered *indigo substitute.**

The value of this latter discovery will be apparent when it is remembered that while vegetable indigo costs at wholesale in Europe $3.20 per pound, this aniline substitute for it, which produces a scale of perfectly solid, permanent colors, can be created in exhaustless quantities and sold at a profit for 14 cents per pound. Even in India, where the culture of vegetable indigo has long been an important branch of agriculture, and in China and Japan, where the popular taste for color amounts to a passion, these aniline dyes are rapidly superseding all others, and a large proportion of the colors manufactured in the district of Basle are sent direct to the remote East.

From the American standpoint the whole subject of aniline chemistry is undoubtedly of the highest interest and importance. Coal-tar, as well as the fuel and other materials used in the distillation of benzole, anthracine, and naphthaline from that substance, are all more cheap and abundant in the United States than in any part of Europe. The acids and chemicals required in producing aniline colors from the three products named may be somewhat more costly at home than abroad, but

* These samples may be seen at this Department.

the high duties which are at present levied on imported aniline colors will far more than compensate this slight disadvantage. It is simply a question of how soon American capitalists will see their opportunity, and by engaging practical and competent European chemists establish this wonderful branch of manufacture on a large and profitable scale in our own country. In order to attain the best results the scope of a single firm should include the production of aniline materials from the tar as well as the manufacture of colors from these materials by the methods already in use.

PETROLEUM AS AN ANILINE BASIS.

Reference has been made in previous reports on this topic to the fact that the residuum of petroleum refineries, the dark sirupy liquid left in the retorts by the process of distillation, has come into prominence as a source of benzole and other aniline materials. Of the practical value of this discovery it is perhaps somewhat early to judge definitely, but highly interesting and promising results have been already attained. The opinions of experts on this subject vary from wary skepticism to entire confidence, but recent developments would appear to give the optimists a decided advantage.

The production of benzole from the refuse of petroleum was discovered about three years ago by a professor of chemistry in the Polytechnic school at Zurich. His process consisted in passing the petroleum vapor over a surface of heated bricks or tiles, but just at the moment of success the overworked brain of the chemist became deranged, and in a fit of temporary madness he committed suicide, leaving the only knowledge of his discovery with a clever young student, who had served as his assistant in the laboratory. The student resumed the experiments, attained what was regarded a practically successful result, patented the discovery in the United States, and has recently established a laboratory there, with capital furnished from Basle, to develop his process on a commercial scale. It is believed here by those in the best position to know all the facts that the success of this enterprise is already demonstrated.

OTHER VALUABLE PRODUCTS FROM BENZOLE.

Within the past few months some notable discoveries have greatly enlarged the scope of aniline production. From benzole, as derived from petroleum, there are now produced, in experimental quantities, *extracts of vanilla* and *cinnamon*, which are chemically identical with the same extracts produced from natural vegetable materials. Not only this, but the German chemists have essayed to produce *quinine* by similar methods, and have already attained results that warrant their confident expectation of early and complete success.

There is now in process of organization in Central Europe a company with large capital to establish in the United States a manufactory of flavoring extracts and substitutes for various vegetable drugs from aniline materials.

The circumstances under which this information has been obtained, preclude a more detailed allusion to the subject in this connection, but the mere statement of the fact should be sufficient to show the rapidly broadening field of aniline chemistry and indicate its future possible importance as a source of wealth in the United States. All these discoveries are of vast commercial value, and are, as a matter of course, carefully guarded.

The earliest fruits of such inventions will be inevitably harvested,

even in the United States, by European capitalists and their chemists, who are so far in advance of their American competitors in this whole field of research; but it is contrary to the traditions of American enterprise that our country should remain permanently dependent upon foreigners for what can be readily manufactured at home. It is asserted, with what truth I am unable to judge, that in so far as the manufacture of aniline colors has been attempted in the United States the result has been more or less unsatisfactory, the home-made dyes being inferior in quality to those imported from Europe. If this be true, the only cause for it must be want of experience and skill in the processes of manufacture.

In respect to abundant and excellent materials, and a tariff that should stimulate and protect competition, the United States certainly enjoy advantages which are unequaled by those of any other country.

FRANK H. MASON,
Consul.

UNITED STATES CONSULATE,
Basle, October 13, 1881.

DAIRY EXHIBITION AT GHENT.

REPORT BY CONSUL WILSON.

Referring to my dispatch No. 17, September 15, and the fêtes given during the past summer upon the occasion of the semi centennial anniversary of Belgian independence, wherein I described somewhat the commercial maritime history of Ghent, and the installation of the new basin and docks, I continue the subject by some descriptive comments on the fête of the agricultural society of the province of Flandre Orientale held in this city, and which took the form of an exhibition of the milk industry of Belgium and Holland. It consisted of three grand divisions:

1. Milk cows, the producers.
2. Milk, butter, and cheese, the products.
3. The machinery and mechanical appliances used. These will be treated in inverse order.

The machinery was interesting and accomplished its work well, but requires no elaborate mention, for the "universal Yankee nation" can be taught but little about machinery upon which is brought to bear, every day in the year, the inventive genius of every farm-yard, cheese factory, and creamery in the land.

One machine is worthy of description. It was the invention of Lefeldt, of Paris, for separating rapidly the milk and cream. It is a well-known fact that milk is heavier than cream. The usual method is by the application of the law of *gravitation* to this fact. The invention consists in the application of the law of *centrifugal motion*. The fresh milk is put into what resembles a common upright cylindrical milk can. The can is made to revolve, still upright, at a high speed. The milk, being the heaviest, flies to the periphery, which forces the cream to the center. They are thus separated instantly, and are drained off by means of flexible tubes—into one vessel the milk, into another the cream. The only care apparently necessary is to keep up the speed, and to properly gauge the quantity at the entry and exit.

Among the machinery exhibited was some for agriculture, and I was

surprised to see the United States so well represented. Of lawn-mowers from Philadelphia, pumps from Seneca Falls, rakes, hoes, hay and dung forks, both from New York and Philadelphia, the United States had nearly a monopoly; and the importer, Dutry-Calson, said, for lightness, combined with strength and beauty of style, no other implements could successfully compete with ours. He said England, Germany, and Belgium could make them as *good*, but they were clumsier and heavier.

Here was another illustration, if one be needed, of the necessity for industrial art education among our mechanics. With an improvement approaching thoroughness in knowledge of the principles of art as applied to industry, the American mechanic can lead the world in the manufacture of articles for every day use, whether of necessity or luxury, and a demand will be created *for them*, which will be coextensive with the knowledge *of them*. This should be the ambition of every American mechanic, and when done, it will justly be the pride of the nation which gave him birth.

There were many sample wagons and carts for the delivery of milk to the customers, showing neat contrivances to insure its safety from adulteration by the carrier, but these have not yet come into general use.

The second division, milk, butter and cheese will be reserved for another dispatch, if deemed of sufficient importance.

The first division, milk cows, would have been of great interest to American breeders and stock-raisers. I believe this subject can be studied with advantage and benefit to the people of both countries, and it is for this reason I deem it my duty to make this report.

An object to be desired by the cattle breeders of the United States is an increase in the *size* of their beef cattle. This, I believe, can be materially aided by the importation of the large cows of the Holland and Flemish races and cross breeding them with the cattle of the United States. I also believe this will be accompanied by an improvement in the milking qualities.

The outlay in time, trouble, expense, money invested, &c., is just about as much to raise a poor or small steer as a large one, while the recompense is increased as the weight increases. It needs neither illustration nor argument to prove the benefit.

The only question is its feasibility with sufficient benefit to compensate for outlay.

If the cattle breeders of the United States could have seen the head of cows at this Exposition, as I did, they would have been impressed, as I was, by the great size of the cows and the desire to use them in the manner suggested.

There were 372 cattle entered for exhibition, nearly every one being milk cows, for the exhibition related exclusively to the milk industry.

The races represented were the Dutch or Holland cattle, the Belgian or Flemish cattle—both of pure blood—and some Durhams crossed with these. The first two are indigenous to their respective countries, very much alike, and doubtless sprang from the same stock. I am not sufficiently expert to give an opinion, but I believe them to be the same, or nearly the same, breed known in the United States as *Holstein cattle.*

Although these cattle may have no standing in the English and American herd books as blooded cattle, I am constrained to believe it is rather a fault to be charged against the books than against the cattle, for it can be demonstrated that they have an ancestry many centuries old, from which, and through which, they have had a pure and unbroken descent, breeding in and in, without admixture or deterioration, preserving and

perpetuating the characteristics and distinguishing marks of their race with a great certainty, definiteness, and exclusiveness as the best blood known. Motley speaks of them as noted nearly three hundred years ago for their size and general good qualities.

The agricultural society of the Netherlands has within a few years published a Herd Book containing the pedigree of their cattle as far back as it can be traced. Their examination shows the existence of this, as a distinctive breed of cattle, in possession of this country as far back as the thirteenth century.

The color of the Belgian cattle is most frequently black and white, while the Hollanders are the same, but sometimes with a sprinkling of corn or tan color, something like that of the Alderneys. Sometimes this gets to be almost red, like the Durhams. But in both the dominant colors are black and white placed in large spots over the body; so also are the other colors, though smaller and sometimes running off into flecks. Their colors are somewhat known by the celebrated paintings of Paul Potter, of Amsterdam, made in the seventeenth century.

When the traveler by rail or canal looking down, as he does, on the low level lands of these countries, beholds a landscape, broad and deep, of rich green meadow, set in a frame of distant timber, each field bounded by one, sometimes two, rows of tall sentinel trees which look like a skirmish line, farm houses and barns with red tile roofs, windmills throwing their giant arms about, apparently proud of their strength, while dotted over the grass, lighting up the scene with their large black and white spots, as something to attract and rest the eye, are to be seen, some standing, some browsing, some lying down, all quietly chewing their cud, a thousand of these cattle, immense in their size, with their sleek smooth coats, he says, "This is a land of richness; here are the evidences of prosperity."

I give in tabular form the size of these cattle, and I ask any breeder or farmer to compare these sizes by measurement with his own cattle, and see if my conclusions are not correct.

Description.	Height.		Depth of chest.	Length of body.		Circumference of body.		Length of neck.	Width across hips.	Average weight.	Average price.
	Ft.	*In.*	*Inches.*	*Ft.*	*In.*	*Ft.*	*In.*	*In.*	*In.*	*Lbs.*	
Flemish or Belgian bulls	4	8½	32.2	6	2	7	8.5	24.8	23 2	2,200	$120 to $140
Flemish or Belgian cows	4	7½	33.3	5	10.9	7	1.8	23.2	24.8	1,650	200 to 240.
Holland 3 years old bulls	4	7½	31.5	6	0.8	7	4.5	22.8	23.6	1,875	100 to 120.
Holland 3 years old cows	4	6½	30.3	5	6.5	6	10.2	22	23.2	1,450	160 to 200

It must not be understood that these figures represent the size, weight, or price of all Belgian or Holland cattle as they might stand in a herd; neither do they represent the exceptionally large ones. They are obtained by taking the average of the prime first-class cattle as they have been exhibited at the various exhibitions in Belgium.

The following table represents another class of cattle, those for beef or milk, not the finest, choicest cattle such as are described in the foregoing table, but such first-class, prime cattle as can be bought in market every day, giving the average for each item. It gives the weights, both

alive and dressed, the prices per pound for each, the percentage of clean beef after slaughtering, and the price of each animal.

Description.	Weight, alive.	Weight, dressed.	Percentage after slaughtering.	Price per pound, alive.	Price per pound, dressed.	Price per animal.
	Pounds.	*Pounds.*		*Cents.*	*Cents.*	
For beef, three years and over:						
Oxen	1,325 to 1,540	750 to 1,000	{ 56 to 60 / 60 to 65	{ 8½ to 9 / 9 to 10	14 to 15	$125 to 150
Cows	1,200 to 1,450	600 to 825	53 to 57	8 to 9	15	80 to 120
Cows for milk	1,200 to 1,450					80 to 120
Heifers, two to three years	1,100 to 1,250					60 to 80
Yearlings						{ 30 to 40 / 50 to 60

I might content myself with giving results, but many farmers and dairymen would desire the formula, maybe for their satisfaction, maybe for their use.

The cows were divided, by numbers, into groups, and one or more numbers of the jury assigned to each group, so as to give his personal attendance and supervision whenever anything was to be done.

The exhibition lasted four days. At six o'clock of the evening of the third day, at a given signal, each cow was milked clean and dry, preparatory to the test of the morrow.

The hours for milking were first fixed for 6 o'clock a. m., 12 m., and 6 p. m., but some complaints were made that the cows would not be able to hold their milk for 12 hours, and the first milking was advanced to 4 o'clock a. m. Every owner provided his own milkers, with whom his cows were acquainted.

The milk being taken from the cows was weighed, not measured, this being considered more accurate—each one separate, of course—and after being thoroughly stirred, samples were taken for tests of cream and for specific gravity, and the rest returned to the owner for his use.

The samples for cream were then examined, each one being made the same quantity and height in the glass, and being immersed to the neck in a large pan of ice-cold water, were set aside for the cream to rise. All samples were subjected to exactly the same treatment under the same conditions.

Many methods and machines, scientific and otherwise, for determining the quantity of cream were considered, but none were believed to be so fair and equal as this.

Such was the treatment after each milking, and at every step an accurate record was made by the member of the jury in charge.

The specific gravity was taken at 15° Centigrade, 58½° Fahrenheit. The samples for cream were allowed to remain until the next morning at 9 o'clock; so the duration of their stay was twenty-six, eighteen, and twelve hours, respectively. The water in the pan then marked 12 C., 53 F.

The samples being taken out, the height of the cream was accurately measured and weighed, and all recorded on blank forms prepared for the purpose. The result will be given further on.

Butter is the principal product from within this province, and therefore the interesting question was, which cow's milk would have the most cream and consequently be the richest in its butter-making qualities.

The amount of milk and of cream given by each cow for one day being

determined, that would determine the relative value of the cows in these regards *on that day.* But these cows may have been giving milk for different periods; one cow calved one month, and another six months previous; then the conditions will have been so changed that the amount of milk or cream given on that day is no true test. And this change of condition is inevitable unless all the cows could be induced to calve on the same day. As this could not probably be done, and would not be desired if it could, some arrangement must be made by which this difference can be equalized.

This was done by the adoption of a table of experiments and tests, made and prepared during the past two years by Mr. Tisdall, of the Holland Park and Horton Dairy farms in England, at the request of the dairy association of Great Britain, and used at its great exhibition in 1880. (Agricultural Gazette February 21, 1881. Table No. 2.)

Example.—A cow gives an average of 20 quarts per day in the second month after calving. How much did she give at the time of calving?

Represent the amount or quantity she gave by 100, and we find by the table that she now gives an average of 5.424 per cent. *less.* 100—424 = 94.576 = the percentage she now gives, $\frac{100}{94576} = 1.0573$.

In order to facilitate the work and to render it more accurate, giving the co-efficients not only by months but by weeks, the following table was prepared by Monsieur Coilpo.

TABLE III.

Description.	First month.	Second month.	Third month.	Fourth month.	Fifth month.	Sixth. month.	Seventh month.
One to seven days.....	1.0000	1.0573	1.2023	1.3142	1.4398	1.5935	1.8591
Seven to fifteen days.....	1.0137	1.0902	1.2284	1.3435	1.4754	1.6525	1.9482
Fifteen to twenty-two days ..	1.0270	1.1251	1.2558	1.3741	1.5128	1.7160	2.0465
Twenty-two to thirty days...	1.0428	1.1624	1.2843	1.4062	1.5521	1.7847	2.1551

Example.—A cow having calved five months and twelve days ago, gives now 8.75 quarts per day. How much did she give at the time of calving?

She is in the sixth month of her lactation. Seek the intersection of the perpendicular column of that month, and the horizontal line of "seven to fifteen days," and we find the co-efficient 1.6525; that is, she gave at the time of calving $1\frac{6525}{10000}$ more milk than she does at the end of five months and twelve days. Multiply the co-efficient 1.6525 by the amount of milk she now gives, 8.75 quarts, another answer will be what she gave at the time of calving in $8.75 \times 1.6525 = 14.46$ quarts, the answer.

These tables do not pretend to mathematical correctness—that cannot be attained by any table or formula. They only pretend to give from the test of experience the probable rate of decrease or "taper" which may be expected in the milk-giving qualities of cows.

When the calculation is sought to cover a long period of milking, like ten or twelve months, it becomes uncertain. The jury did not apply it for a greater period than seven months.

I now give the result of the competitive examination, being the table presented by the jury.

I have continued the weight in kilograms and the measure in liters. The law of the United States has legalized the metric system and allows it to be used (Rev. Stat., sec. 3570). A kilogram is equivalent to

2.2046 pounds avoirdupois, and 1 liter is equivalent to 1.0567 quarts. Roughly stated, a kilogram is 2 pounds, and a quart and a liter may be taken as synonymous. Any one interested can easily make the calculation to his own satisfaction.

Twenty-two of these cows in the table gave over 20 liters, 12 gave over 24 liters, three gave over 28, two over 30, while one gave 34.3 liters, or over 8 gallons of milk as her daily yield. Twenty gave over 2 liters of cream, five gave over 3, while one gave 4.7 liters.

Calculating by the table aforesaid, the jury decided the amount of cream given by the eight highest at the time of calving to be as follows, and awarded the prizes accordingly:

Number.	Liters of cream at calving.	No. of prize.	Description and amount of prize.
23	6.113	1	Gold medal and 250 francs.
62	5.554	2	Silver medal and 225 francs.
67	4.934	3	Bronze medal and 200 francs.
73	4.442	4	Bronze medal and 175 francs.
68	4.196	5	Bronze medal and 150 francs.
52	4.148	6	Bronze medal and 125 francs.
30	4.132	7	Bronze medal and 100 francs.
22	3.682	8	Bronze medal and 75 francs.

Some of these cows had calved more than seven months previous, and the rule was not applied to them, but special prizes were given. Six cows from 8 to 9 months previous; four cows from 10 to 11 months previous; four cows from 13 to 14 months previous; 3 cows from 17 to 22 months previous. One of them had calved more than twenty-two months previous, yet she gave as her daily yield 20.546 liters of milk, from which was taken 1.36 litres of cream. The jury awarded her a prize, as they say, "for her remarkable persistence."

It must not be supposed these were the only cows tested, or that these were the only prizes awarded. Subdivision or groups were made according to residence of owner, age of heifer, &c., and this of which I have been speaking is only the report of the jury on milk or cream. There were several others. The milk of some cows contained three times as much cream as others. One gave 15.80 per cent. of cream, while another gave but 4.74 per cent.

In the majority of cases the morning milk was superior to that of the midday or evening.

The specific gravity varied between 1,026.3 and 1,038. Of the 168 samples of milk tested for specific gravity, 25 fell below 1,029.

TRANSPORTATION.

The intent of this dispatch would fail if I said nothing about transportation.

The law and regulations in force in the United States concerning tariff, inspection, and entry can be better determined there.

Cattle cannot be carried across the Atlantic with either safety or profit in sailing vessels. Steamships do not always take them. They must be offered in lots large enough to pay the expense of fitting up stalls for their accommodation. It may be recognized as the rule that steamships which carry passengers, either saloon or emigrant, will not

carry cattle. There doubtless are exceptions, but not many. The authorities at New York object.

The White Cross line of steamers, Steinmann & Ludwig, Antwerp, agents, carry all the cattle from Belgium (and I believe from Holland) to the United States. They run to New York and to Montreal.

These shipments have been (to New York) in summer of 1880, 169 cattle; in summer of 1881, 230 cattle.

Two shipments have been made this present season to Montreal.

The prices are as follows:

	Per head.
Bulls and cows on deck	£5
Yearlings	4
Calves	3
Under deck, additional	1

The ship puts up the stalls and supplies the water; feed, and men to care for the cattle, are for shipper's account. French, Edge & Co., of New York, are agents for this line.

Canada has been interesting herself in the manner suggested to Americans in this dispatch. She has imported, for breeding purposes alone, from Belgium during the past year 62 head of cattle, and from England 32 bulls, 336 cows, and 21 calves, while her exports for beef have been, during the year 1880, to England alone 50,905 head.

Of course no recommendation of mine or indeed of any consul could be accepted upon our judgment solely or without examination and trial, but I venture to express my belief that a good business man—a judge of horses and cattle—could make a profitable business by the importation of cattle to the United States, as I have suggested, and, for a return cargo, exporting horses for use in Belgium, Holland, and France. The prices are high here, and for light driving and riding horses I think remunerative prices could be obtained.

This trade is already commenced, but is in its infancy. I hope my notice of it will attract the attention of those concerned.

A cargo of 60 American horses (mares) were landed within the past month at Bruges, in this consular district, and sold there at auction, bringing fair and satisfactory prices.

CONCLUSION.

It has not been without some pains, trouble, and labor that I have gotten the information contained in this dispatch. I have gathered it from all parts of the kingdom. It is intended solely for the benefit of Americans who may be desirous of improving their breeds of cattle. If it succeeds in aiding them I shall feel amply repaid.

AUTHORITIES AND SOURCES OF INFORMATION.

I have been a personal witness to many of the things I have described, but I have received material aid in my examinations from the following gentlemen, to whom I tender my acknowledgments: Professor Leyder, of the Royal Agricultural Institute at Gaubloux, Belgium; Louis Tydgadt, esq., secretary of the Agricultural Society of Flandre Orientale, Ghent; Mr. P. F. L. Waldeck, secretary Holland Society, Loosdianen, near The Hague; Professor Bonar, agricultural engineer: Selzaete, director of Abattoir, Brussels; Mr. Edward Minne, inspector of Abattoir, Ghent; report of jury on quantity and quality of milk,

prepared by Professor Chevron, of the Royal Agricultural Institute at Gaubloux.

As to transportation: Mr. John C. Moosily, agent Red Star steamers, Antwerp; Steinmann & Ludwig, agents White Cross steamers, Antwerp; Wambersie & Son, ship-brokers, Rotterdam.

THOMAS WILSON,
Consul.

UNITED STATES CONSULATE,
Ghent, October 27, 1881.

IMPROVED PROCESS IN WINE MANUFACTURE.

REPORT BY CONSUL POTTER, OF CREFELD, GERMANY.

Mr. Adolph Reihlen, of Stuttgart, a gentleman of well-known scientific attainments and ceaseless perseverance and energy, has recently discovered a valuable chemical virtue in grape-skins, and a very simple process of extracting it, which, at this time, promise results that must be very interesting to wine growers, and of more especial interest still to wine consumers everywhere.

Nature appears to have deposited in the cells of the skins of grapes properties which are natural to the production of pure wine and which, if utilized, give to it a life, body, and aroma that is not only delicious to the taste and wholesome, but essential, also, to the production of perfect fermentation. These properties appear to have never been previously discovered, and, for unnumbered centuries, that part of the vintage containing them has been cast away to rot among the heaps of *débris* that encumber the premises of the vintager.

Presuming the subject to be of general public interest, and of especial interest to the grape-producing sections of the United States, I give the chief characteristics of this new process of wine-making, and the advantages and benefits which are claimed to arise from its adoption and use.

Mr. Reihlen's invention, or discovery, which has been patented both in Europe and the United States, has been developed only within the past year. It differs, in many essential particulars, from methods which have been practiced, with slight improvements, from the earliest periods to the present time, and is, at this date, receiving the marked attention of institutions of science in Germany, France, and Italy. The results of the investigations made by some of the best chemists in Germany, and which were ordered by the government of Württemberg to be conducted under the supervision of the chief department of agriculture* in that kingdom, have just been made public, and the facts developed induce me to believe that Mr. Reihlen's new method of wine-making has merits substantial enough to cause it, sooner or later, to be catalogued among the practical and permanently useful discoveries and inventions of the present century.

A congress, composed of wine producers, wine merchants, chemists, and other scientific gentlemen, which recently assembled in Heilbronn, Würtemberg, to consider subjects relating to grape culture and wine-making, appears to have regarded Mr. Reihlen's discovery as of very great importance, and accorded to that gentleman all the merits which he claims for his invention.

* Königlich Württembergische Centralstelle für die Landwirthschaft.

In the first place it is to be observed that the fermentation of "wine-must" is not produced by albuminous and azotic matter, according to prevailing methods, but *by clean and pure grape-skins*, from which *all such substances* have been *carefully removed*. Up to the present time albuminous matter has been regarded as indispensable to fermentation, and, as is well known, this latter substance is not only the cause of the ultimate production of yeast, but also of most of the diseases to which wines are subject, though they are not attacked, sometimes, until they are many years old.

Another result accomplished by this new discovery is this: The body, color, and aroma given to the "must" are greatly increased by the substances which are extracted from the *skins* as well as from the *seeds* of the grape.

According to the official report of the Royal Agricultural Bureau, in Stuttgart, dated December 24, 1880, the wine made under official supervision in accordance with the Reihlen method, contained a residuum of wine-stone, or crude tartar, instead of yeast, as is the case by all other known methods.

Still another fact developed, and regarded as quite remarkable, is that red wines made by the Reihlen process, contained, after fermentation, *twelve and one-fourth times more color* than red wines made from blue grapes identical in kind and quality by present methods of manufacture.

The testimony of chemists and other judges and experts declared that the Reihlen process gave to wine made from Italian grapes a darker and richer color, and a liveliness, sparkle, and purity of taste never before observed. For these reasons, coupled with the fact that they are free from adulteration, and, therefore, more wholesome, they regard the intrinsic value of wines made by this process as double that of wines prepared from the same kind of grapes by methods now in practice. It also appears from the same official sources that diseased and damaged old wines were, with the addition of a little white sugar, perfectly fermented anew, with grape-skins which were *several years old*, quite as well as if the skins had been fresh. It is further stated that this treatment gave to such wines a new, beautiful, and brilliant color, and that the improvement in their flavor and quality was very great, and that no indications of the presence of yeast were detected.

Some of these declared facts appear to be in direct conflict with the scientific theories heretofore adopted regarding wine making, and would hardly be credited were they not authenticated by authorities in such matters that were unquestioned.

The recent experiments of the learned Prof. L. Roesler appear to have removed from the minds of those who have investigated the subject all doubts regarding the practical value of this invention, and readily concede to Mr. Reihlen all that he claims for his discovery.

Professor Roesler, by means of numerous chemical and microscopical tests, found that the fungus, producing fermentation, was of the same formation as that existing in wine manufactured by ordinary methods, but that the fungi (mostly *Saccharomyces ellipsoides R.*, with some few forms of *Saccharomyces pastorianus R.*) are the same as in other processes for producing the best fermentation of wine, but they do not nourish and multiply themselves by swimming in the fluid, but find nourishment only in the skins of the grapes. The latter rest at the bottom of the wine cask and keep the fermenting substances together, as if in a linen sack, through the pores of which the wine circulates. Old

wines, therefore, fermented anew by this process, remain perfectly clear, and at the same time receive a rich and brilliant natural color.

Professor Roesler proved, by eight very interesting experiments, that although the powerful matter contained in the grape-skins generated the material which furnished nutriment for the fermentation fungi, yet this substance, without the presence of grape-skins, is separated into integrant particles, and in this condition was not favorable to the process of fermentation.

In confirmation of these observations the last experiment of Professor Roesler demonstrated the fact that "wine-must" without the presence of grape-skins remained entirely unfermented, and after standing two days was covered with mould, although the yeast was left in condition for free action. Even when the same fluid was boiled with prepared skins under a cotton cover, it remained, as was expected, perfectly clear, but fermentation did not take place; whereas the first "must," with prepared skins, but without cotton cover, up to 2.8 per cent. extract, attained perfect fermentation.

Precisely as with other experiments the fermenting properties were found to exist *exclusively in the grape-skins*, and the fermenting wine remained always transparently clear, notwithstanding the fact that nearly all the sugar properties remaining in it were transformed into fermentation products.

It will thus be observed that, by using the natural fermenting principles which Mr. Reihlen has discovered as existing only in the cells of grape-skins, there is nothing present in the wine to prevent it from remaining at all times clean and clear.

The theory heretofore held regarding the coloring of red wine has been that the juice of the grape is colorless; that the coloring matter contained in the skins of grapes is not soluble in water or "wine-must," and that it is only through fermentation that spirits of wine, with the simultaneous action of the acid in it, can liberate the coloring matter and aroma and permit them to impregnate the wine.

By the Reihlen method the cleaned grape-skins are put directly into the "wine-must." Then, by the action of the heat applied to it, the glands which are situated on the inside of the skins burst and give their precious contents to the fluid in which they are immersed, and nothing more appears to be needed to produce lively fermentation.

The substances liberated by this latter process consist of wine-stone, or argals, color, aroma, and various other minor constituents not yet fully analyzed, but which aid in giving body and perfection to the wine. It has also been discovered that the seeds of grapes furnish the wine with delicious volatile oils, which have heretofore been wholly lost.

When the manipulations of this process of manufacture are properly conducted there is nothing, it is said, to fear concerning the presence of tannic acid.

White grapes may be treated by this process in the same manner as red ones, and with similar results. In relation to the amount of coloring matter contained in grape-skins it is stated that recent experiments by the Reihlen system have developed the curious and interesting fact that the thin-skinned German grape gives more than 90 per cent. of its coloring matter to the wine, while the thick, leather-like skins of the Italian and Spanish grapes generally furnish considerably less than 90 per cent. of their coloring matter to the wine.

Red wines, manufactured under the Reihlen patent, are, as a rule, from 4 to 6 times darker in color after fermentation than wines made with similar grapes by other methods of manufacture.

The official tests previously referred to showed the amount of coloring matter produced on those occasions to be 12 times or 1,200 per cent. greater than that theretofore obtained by any other process. This fact will perhaps exhibit as plainly as any other the important and fundamental character of the Reihlen invention or discovery. Something, of course, depends upon the characteristics of the grapes used. Such kinds as give by the usual process of fermentation very dark wines do not show a difference so marked as that above mentioned.

One of the most valuable features of this new invention, and one which will especially interest the consumers of wine, as well as that portion of the general public in America who appreciate the value of pure and healthful beverages, is the fact that no substances whatever that are foreign to the grape are added to the wine in the process of manufacture. In fact, only the properties of the clean grape can be used, for the reason that the introduction of any foreign matter would be fatal to success by the Reihlen process of manufacture, which appears to be simple, easy, clean, and natural.

This method is being rapidly adopted, and is already in use among some of the largest wine-producers on the Rhine and Neckar.

The climate and other conditions of that part of the United States where the cultivation of the grape is easy, and the manufacture of wine of the best quality is possible, and where, too, the hot summers give character and quality to grapes, similar to those of Spain and Italy, render it important to know that a process of fermentation and manufacture has been discovered that effectually removes the dangers that have heretofore surrounded the vintager after his crop was gathered. It is claimed that acidity is not possible where the Reihlen method is strictly followed. It is stated, also, that wine fermented, even in the ordinary way, and afterwards treated with the Reihlen process, ferments perfectly all remaining sugar elements, and prevents production of dangerous acidity.

The peculiar earthy taste which characterizes many of the wines produced in the United States disappears entirely, it is alleged, when fermented by this new process. Neither is it necessary, as hitherto has been the case, to add spirits in order to preserve the wine and prevent diseases to which it is subject.

Prepared grape-skins can be kept and used at any time during a period of one to four years.

Tests by this method have shown that grape-skins, young or old, constitute the prolific field or basis upon which the fermenting fungus grows and thrives, and have proved to be nearly as effective as fresh ones. It has also been demonstrated that diseased or damaged old wines can be readily brought to a second fermentation, and restored at pleasure, without injuring their quality as old wines.

J. S. POTTER,
Consul.

UNITED STATES CONSULATE,
Crefeld, December 6, 1881.

VINE CULTURE AND PRODUCTS IN AUSTRALIA.

REPORT BY CONSUL-GENERAL SPENCER, OF MELBOURNE.

The vine-growing area of Australia is not, at present, susceptible of accurate definition, as it is not circumscribed by those geographical or isothermal lines which would mark the limits of the territory suitable

for viticulture in the northern hemisphere. In the tropical and subtropical regions of this continent, there are extensive plateaux, lying from one to two thousand feet above the level of the sea, which enjoy a climate not unlike that of the south of France, and the Spanish Peninsula; just as, in the most southerly portion of Australia, there are table lands and hilly districts, where the fruits of England and Northern Germany are cultivated with great success; whilst upon the plains and in the neighboring valleys, the grape, the olive, the orange, lemon, and pomegranate ripen in the summer sun. In Queensland the vine flourishes within three degrees of the tropics; and in Victoria plenty of excellent wine is produced as far south as 38°. This would give an area of country comprehended within something like twelve degrees of latitude and forty degrees of longitude; over a considerable portion of which, the cultivation of the vine may be expected to extend, to meet the requirements of an increasing population at home, or of an expanding consumption abroad. And, as the geological formation of Australia causes it to present an immense variety of soils, and as these influence the character of the wines produced upon them, there will necessarily be a corresponding variety of kinds, flavors, and bouquets. Variations of climate and local temperature will also exercise a perceptible and an important influence upon them, modifying the nature of some and improving the qualities of others.

To Mr. John McArthur, of Camden, New South Wales, must be ascribed the honor of having introduced the vine into Australia, or New Holland as it was then called; and he was also the pioneer and founder of its pastoral industries, which have since assumed such large proportions. One of the earliest settlers in the colony with which his name has become so closely identified, he revisited Europe, accompanied by his two sons, in the year 1815. Observant, reflective, shrewd, and sagacious, he perceived that the conditions of soil and climate which experience had proved to be most favorable to the growth of the vine, and to the production of the choicest vintages in France, Germany, Italy, and Spain, were precisely those to be met with in New South Wales; and he resolved to take advantage of them accordingly. Collecting cuttings from some of the best vineyards in the first-named country, he planted them, on his return to Australia, in a vineyard which he formed on his estate at Camden. The result, as soon as the vines reached maturity, was highly encouraging; and to this day, the white and red Camdens are held in no inconsiderable repute by the best judges of wine. Five and-twenty years later, Mr. McArthur dispatched a special agent to Germany to procure cuttings of the more famous of the vines of Rhineland; and these were widely disseminated throughout the settled districts of Australia. Many Swiss and German immigrants, coming out to South Australia, and what is now Victoria, also brought with them cuttings from the parishes or communes in which they had been brought up, and thus, by the middle of the present century, a somewhat numerous variety of European vines had been well established and thoroughly acclimatized in Australia.

At first, however, the processes employed in expressing the juice of the grape, and in its fermentation and after treatment were very crude and imperfect. They were usually conducted by "rule of thumb," and the wine itself too often resembled a rough and somewhat acid *vin ordinaire*. The means employed for its cellarage were also primitive and unsatisfactory, exposing it to great and sudden changes of temperature which proved very prejudicial. Neither could the growers, as a general rule, afford to keep it for any length of time. They were living from hand to mouth. They were dependent upon immediate returns for

the means of subsistence; and their wine, being forced into consumption at a very early and immature stage, was neither sound in quality nor agreeable in flavor. Under these circumstances it suffered considerably in public estimation. It became a by-word among persons pretending to a fastidious taste, and a jest with the witlings of the press. But all this has become a thing of the past. Capital, skill, and enterprise were gradually attracted to the industry. *Vignerons*, and persons experienced in the making and management of wine, were imported from Europe; samples were sent to the Old World and were submitted to the judgment of competent jurors at various international exhibitions, and their verdict was complimentary in the extreme. Local prejudices gradually died out, and Australian wines began to find their way on to the tables of those who set the fashion in these matters in the various colonies. The demand for such beverages has recently overtaken the supply. Not only so, but the stocks of old wines are being rapidly diminished, and stimulated by these encouraging circumstances the *vignerons* are bringing a larger area of land under cultivation.

The consumption of colonial wines, it is affirmed, has also been found to be conducive to the spread of temperance. Between total abstainers and drunkards, there is a large class of persons who might be called, in the language of Spanish politics, *moderados*. These find in the vintages of Australia light, exhilarating, refreshing, and unintoxicating beverages, which are very little dearer than malt liquors and much less injurious than spirits. In most of the large cities of Australia there are wine shops in which native wines are retailed at four cents a glass; and as an indication of the extent to which they are superseding spirits in general consumption it may be mentioned that in Victoria the most populous of the Australian colonies the value of spirits imported at the two periods subjoined was as follows:

Years.	Population.	Value.	Per head.
1869	699,790	$1,689,210 82	$2 41
1879	899,333	1,881,028 78	2 08

During this decennial period, it may be remarked, no increase took place in the number of distilleries in Victoria, nor, it is believed, in the quantity of spirits distilled.

The following table will show the area of land under cultivation for vineyards and the number of gallons of wine made in the Australian colonies in the year 1879:

Colonies.	Acres.	Gallons.
Victoria	4,284	574,143
New South Wales	4,266	733,576
Queensland	743	104,674
South Australia	4,117	459,468
Western Australia	718	.....
Total	14,128	1,871,861

It will be observed that the production of wine per acre is much greater in New South Wales than in Victoria or in South Australia, it averaging nearly 172 gallons in the first, 134 in the second, and 111 in the third of these colonies; while the quantity of table grapes consumed in

or exported from New South Wales is probably as considerable as in either of the neighboring provinces. The superior productiveness of the vineyards in the former is probably attributable to climatic causes; for while the mean temperature does not vary materially from that of South Australia, the climate is less arid, and the berries are plumper and juicier. Victoria, being the most southerly of the colonies on the mainland, does not produce such large and full-bodied grapes as New South Wales and South Australia, except in the districts lying to the north of the dividing range. But the last-named province is manifestly destined to produce all kinds of dried fruits in great abundance and of the finest quality. The exhibits of raisins and currants, of figs and prunes, and of dried apples at the Melbourne International Exhibition proved to be fully equal, in every respect, to the choicest specimens of the same commodities from countries bordering on the Mediterranean. In this respect South Australia may be called the California of the South Pacific.

It may be confidently asserted that every variety of wine grown on the continent of Europe is capable of being produced in the southern half of the continent of Australia. New South Wales furnishes vintages closely resembling those of Spain and Portugal, Medoc and Bordeaux, Burgundy and Champagne. The best known of her red wines are these: Albury Port, Black Spanish, Black Hamburg, Buculla, Burgundy, Camden, Carbinet, Chateau Margaux, Claret, Dalwood, Grenâche, Hermitage, Isabella, Lambruscat, Lachryma Christi, Malbec, Muscat, Pineau Noir, Riesling, Shiraz, Verdeilho, and Virdot. Of white wines, the following may be enumerated: Aucarot, Bebeah, Blanquette, Buculla, Camden, Cawana, Cawana Hock, Champagne, Dalwood, Grenâche, Hock, Kaludah, Madeira, Malaga, Muscat, Muscatel, Pedro Ximenes, Porphyry, Pineau, Riesling, Sherry, Shiraz, Tokay, Tolle Blanc, Verdeilho, and White Hermitage. The mean spirit strength of these wines, as shown by Syke's hydrometer, ranges from 20 to 25.

The red wines of South Australia include Auldana, Birksgate, Burgundy, Carbinet, Claret, Constantia, Ferastes, Highercombe, Linden, Malbac, Mataro, Muscadine, Muscat, Pomard, Port, Scyras, Shiraz, Tintilla, and Tokay. Some of these names, it is scarcely necessary to observe, are derived from the localities in which the vineyards are situated; but they also denote new and specific varieties of wine, arising from the blending of two kinds of grapes, or from the modifications which the character of the fruit has undergone in a new habitat of the vine. The white wines comprehend Auldana, Blanquette, Doradilla, Frontignac, Hock, Madeira, Moullion, Paolmina, Blanco, Pedro Ximenes, Riesling, Ruschette, Sauterne, Sercial, Sherry, still Champagne, Tokay, and Verdeilho. Most of these wines contain about 23 per cent. of spirit; and the price ranges from $1 to $3 per gallon. For $2 it is possible to procure wine of a really choice quality. Rich fruity wines are grown upon the plains, and Hock and Claret on the hills. The soil in some places is a fine chocolate loam, and in others it is ferruginous and cretaceous.

Dr. Bleasdale in speaking of the vineyards of South Australia, the premier colony in viticulture, says:

> The whole of the country about the capital seems formed to be the home of those vines which nature has destined to produce strong, generous, full-bodied wines. Several vineyards seem to want nothing but the experience and skill of the Portuguese *feitor* and Spanish *capitan* to turn out as good wines of the port and sherry character as most of those now obtainable from Europe. In South Australia, nature herself is opposed to the production of those high bouquet wines. Here she demands consideration for body, sweetness, and the other high qualities of generous wines. The Riesling and Verdeilho, when not tortured, yield wines second only to the Bucellas of

Lisbon, and the sweeter kinds of Madeira; while the Donzellinka, the Black Portugal, the Scyras, the Mataro, and Grenâche yield wines of the character of good port, such as it is known in Portugal, and the strongest of Hermitage, and that peculiar produce known as Roussillon.

In Victoria, where the cultivation of the vine bids fair at no distant date to rival her pastoral industries, the region of light wines lies south of a mountain range running from east to west, while the fuller and stronger wines are produced to the north of it. In the former are to be found in high perfection the Chasselas of Fontainebleau, the Pineau of Burgundy, the Sauvignon of Bordeaux, and the Hermitage of the Rhineland; while in the hotter districts full-bodied wines are produced resembling in quality those of Spain, Portugal, Southern Italy, Hungary, and Madeira.

Among the many large vineyards established in Victoria is that of St. Hubert's, in the valley of the Upper Yarra, which is the largest in Australia. M. de Charnay, whose opinion as a foreigner will not be suspected of a native or local bias, thus describes his visit to this celebrated vineyard:

It is the season of bloom (*floraison*). Two hundred acres of vines, in one compact block, spread their green and vigorous foliage, and the air is perfumed with the mignonnette scent of the vines in bloom. I doubt if there could be found in any part of France a more careful cultivation. There is not a weed between the vines, and the branches, all tied to sticks or trellised, disclose innumerable bunches. If the weather is propitious, the forthcoming vintage must be abundant, for I count up to sixty-two bunches on a single vine. Truly, it is a gladdening sight, especially for a Burgundian; it brings back to my memory the far-away hillsides of my own native land. Curious to say, here, in the same vineyard, a variety of kinds are cultivated, which all succeed. It is divided into large squares of these various kinds. Here the Sauvignon, of Bordeaux, the Pineau of Burgundy, and there the Chasselas, of Fontainebleau, which produces a delicious wine, and the Hermitage and the Riesling of the Rhine. At first I thought that the planting of all these varieties was in view of an extensive experiment, which would show the best kind to cultivate afterwards; but no, M. de Castella tells me that he keeps each variety distinct, and that he makes Bordeaux wine, Burgundy wine, Hermitage and Rhine wine; and what will surprise our *vignerons* is, that all these wines have truly their distinctive bouquet, and that they have perfectly preserved the character of their origin. We shall pass in review the cellars. It is really Bordeaux, Burgundy, and Rhine wine which I taste. I cannot express my astonishment. This is contrary to the law of assimilation; it cannot remain so forever. Every species of vegetation, as well as every race of living beings, is modified by outward influences of soil, climate, habits, and food, and the transformation is more rapid as the organization of the individual is less perfect, and as it belongs to a lower order. It is evident that this vineyard, producing to-day several wines, each of perfectly distinct character, will eventually produce only two types, one red and one white, which will bear uniform products, and will no longer be similar to European wines, but will be Australian St. Hubert's wines. Be this as it may, these wines are delicious.

Viticulture is as yet in its infancy in Queensland; where, however, the produce per acre, *i. e.*, about 140 gallons, is something considerable. The varieties exhibited in Melbourne were these: Espar, Hermitage, Isabella, Mataro, Port, Riesling, Salome, Tokay, and Verdeilho. The prices range from $1.50 to $3 per dozen.

As regards Western Australia, this branch of industry is in a somewhat backward state. With a territory embracing upwards of a million square miles and with a population of less than 30,000, capital can find so much more immediate and remunerative returns when applied to the grazing and breeding of cattle, and free labor is so dear that the cultivation of the vine has hitherto been attempted on a very small scale. The wines produced have been the following: Burgundy, Fontainebleau, Hermitage, Muscat, Pedro Ximenes, Sauterne, and Verdeilho.

In view of the deplorable ravages of the phylloxera in France, this question of wine growing in Australia is daily assuming greater importance; because not merely

are the capabilities of production virtually unlimited, but the climate and soil are eminently favorable, as has been already stated, to the growth of every one of the varieties of the grape, which are so rapidly perishing in the country from which the whole world has hitherto been accustomed to draw its supplies of the choicest wines. In the year 1869, when the production of the French vineyards had reached their maximum, it amounted—as we learn from the *Annuaire de l'Économie Politique*—to 70,000,000 hectoliters. In 1878 it had fallen to 48,720,553 hectoliters; and the particulars given with respect to the position of the *vignobles* in the year following, by *L'Année Scientifique*, show that the French diminution of the yield is continuing to assume alarming proportions. Thus, in the département du Gard, where there were 99,000 hectares of vineyards ten years ago, there are now less than 9,000 hectares. Out of 70,606 hectares in the arrondissement of Montpellier, no less than 65,612 have been ravaged by the scourge. Out of 101,333 hectares in the arrondissement of Béziers only 57,376 remain intact. In that of Lodéve, 24,893 hectares out of 28,805 have been destroyed; and the full list of the arrondissements in which the dreaded pest is extending its ravages, comprehends no less than one hundred and twenty of these territorial divisions; so that, in the words of the publication just referred to, "nearly the whole of our wine-growing country is either invaded, or is about to be, by the phylloxera;" and it is now ascertained that at certain periods of the year—and notably in June and July—the young insects emigrate from the localities in which the plant they feed upon has become scarce, and set out in search of "fresh fields and pastures new."

Under these circumstances, and taking into consideration the fact that maladies of this kind—as has been the case with respect to the potato disease—when they have once established themselves in a country, seem to take root there and to become chronic, it does not require one to take a very sanguine view of the prospects of Australian viticulture in order to predict that it has a great future before it. At present this industry is only in its infancy, and the product of 1879, which was, in round numbers, 1,900,000 gallons only, was very little more than that of the smallest of the French departments, namely, that of Sarthe; but we are convinced that the day will come when colossal fortunes will be made by syndicates of French wine merchants and vine-growers operating in Australia, and discovering in its vineyards mines of wealth far exceeding those which were laid bare by adventurous miners in the early days of the gold fields.*

Taking the awards of the jurors at the Melbourne Exhibition as a probably accurate and satisfactory criterion of the character and quality of Australian wines, we are led to conclude that they are inferior to the best kinds produced in France and Germany, but equal to those of Spain, Portugal, Austria, and Italy; for while France took nineteen first prizes, and Germany six, neither of the European countries obtained one, and the whole of the Australian colonies came within the same category.

Victoria carried off eleven second prizes for Riesling, Hock, white and red Hermitage, Pedro Ximenes, and Crême de Bonzie; New South Wales secured six for white Hermitage, Pineau and white Shiraz; and South Australia was awarded two for Carbinet, Muscatel, and Shiraz; the third prizes being very numerous for wines grown in each of these three colonies.

More interest was taken in the report of the wine jury [says the Melbourne Argus] than almost any other of the thirty-seven lists that were handed in. The judgment was done according to an international standard, for the first time, we believe, in the history of any great exhibitions, the wines of all countries being pitted against each other, instead of each group being tested by itself. Under these circumstances it was not to be expected that the Australian wines could come out at the head of the list amongst the finest vintages of Bordeaux, Champagne, and the Rhine. Nevertheless, they took very high honors, considering their moderate prices, and the fact that wine-making in Australia must still be regarded as an industry in the early stages of its development. * * * * * The report of the jury (which contained French, German, and other experts) may be interpreted to signify that, at very moderate prices, wines can be had in Australia equal in quality to all but the very finest clarets and champagnes of France, which are dear wines in this market.

It is worthy of note that the Emperor of Germany's prize, consisting of a table service in solid silver, valued at $3,500, which had

* "A glance at Australia in 1880."

been offered for the best representative Australian exhibit, was formally awarded by the German commissioner to the proprietors of St. Hubert's vineyard, thereby showing his estimation of the growing importance of the wine industry of Australia. The chairman of the wine jury, in recommending this award, submitted the following reasons which influenced the jury in making the recommendation:

1. Wine-growing is essentially a colonial industry. It is racy of the soil; and, unlike nearly every manufacturing industry that has been established in these colonies, it involves the employment of purely local processes and purely local products, worked up by local labor.
2. The vineyard of St. Hubert's, embracing 250 acres under vines, of which 210 are now in full bearing, turns out from 60,000 to 70,000 gallons per annum, and employs on an average 30 *vignerons* all the year round, besides furnishing occupation for 80 persons during the six weeks of the vintage season.
3. Because the experience of older nations has shown that the people of wine-growing countries are sober in their habits, and that the consumption of light wines is conducive to temperance and health.
4. Because every encouragement offered to the pursuits of husbandry in a young country tends to counteract that concentration of great masses of population in a few cities, which has become one of the dangers of modern civilization, and exposes such masses to be easily indoctrinated with socialistic and revolutionary principles.
5. Because the award of the Emperor of Germany's splendid prize to the foremost of our wine-growers would be an honor paid to the great growing industry which they represent, and could not fail to exercise a marked and salutary influence upon the future development of that industry, by indicating the high position which Australian wines have already attained, and by stamping them with the approval of so important a body as the commissioners of the International Exhibition.

An experienced judge of European and Australian vintages, who has had frequent opportunities of studying vine-growing and wine-making in Spain and Portugal, makes the following remarks concerning the varieties produced in two of the colonies:

Stated in general terms, the Victorian wines are wonderfully good in their several kinds. But it must be observed *in limine*, that whether light or full-bodied, they are the produce of French or German vines. Hardly any other, except the Verdeilho (Madeira vine), is to be found as a standard sort. Not a few vineyards in South Australia, such as those of Sir George Kingston, Mr. White, &c., contain nothing but Spanish kinds; and Clarendon, Pewsey Vale, Morialta, and Highercombe have mixtures of these with French; so it is impossible to institute exact comparisons. Yet from the circumstance of the Spanish vines being grown for the most part in hot situations, with plenty of lime in the soil, and the mode of treating the musts being more German than Spanish, these vineyards turn out white wines as fine and delicate as any that have been produced at Yering or the Barrabool Hills, but of course of a different bouquet, and slightly higher alcoholic strength. No matter how remote Victorian wines may yet be from the glorious bouquet of Deinhard's or the Johannisberg Hock, the produce of the south side of our dividing range comes the nearest to them of anything south of the equator. But if the treaters of the Spanish produce in South Australia only understood the requisites for managing their musts, as such are treated in the instances of Manzanilla (the bitter, fine, hard wine, so called from the *bitter* partaking of the character of camomile), the Montilla, another dry wine, and the Paxarete, a medium sort, it is hard to understand why these light, firm sorts might not be supplied abundantly.

In the valley of the Murray all the Spanish vines would have a fine chance; for there a deep gravelly soil, heat and shelter, and no hot winds, would indicate their natural home. And, if ever the produce of this colony is to rapidly supersede the hot brandied sherries, and retain the pure sherry flavor without the adventitious impure alcohol, it is clear that from Sandhurst and Benalla to the Murray the requisite conditions must be looked for.

Unfortunately for the Australian *vigneron*, the dreaded phylloxera has made its appearance in Victoria; and, although energetic measures have been taken to stamp it out, it remains to be seen whether they will prove completely effectual. In the year 1878, thirteen small vineyards, covering about 75 acres, in the district of Geelong, were found to be infected. The evil appeared to have existed for some consider-

able time before it was discovered; and it is supposed to have originated in the importation of some contaminated vine-cuttings. When it was discovered, the insects had emerged from their chrysalis state and had taken flight to lay their eggs elsewhere. All the vines in the area indicated above were rooted up and destroyed; but the year following it was ascertained that six additional vineyards, comprising about 35 acres in the aggregate, were infected. These localities are situated at distances ranging from a hundred yards to a mile and a half from the vineyards previously destroyed. A similar course was pursued; but, notwithstanding these precautions, something like fifty acres of vines were found to be infected in 1880.

A select committee of the legislative assembly has recently been appointed to inquire into, and report upon, the present condition of the phylloxera in this colony, and the best means of eradicating or otherwise mitigating the evil.

From the official report of this committee, who availed themselves of the services of foreign and colonial scientific experts, we may be allowed to make the following extracts:

The following is the manner in which it has always made its appearance in this colony: The root becomes covered here and there with patches of a yellow orange-color when viewed with the naked eye, and the rootlets have at their terminal points, and at other parts, nodules or swellings; in the fissures also of the bark of the roots may be seen these little bodies. When viewed with the microscope these spots are seen to be little clusters of insects, some stationary, others traveling about; these have six legs and two antennæ, and, when well looked into, there has appeared on one or two specimens a kind of proboscis or tube, having at its origin what appears to be a gland or bulb, situated on the left side of the head, in the specimen seen. It is supposed that it is by means of this tube that it penetrates the bark, and takes its nourishment from the sap. There are also seen clusters of yellowish bodies, somewhat resembling minute seaweed bladders found on the sea-shore, and from these are seen protruding what appears to be the head and antennæ.

In this colony the disease seems to attack vines in different soils—calcareous, loamy, and sandy; but it is least apparent in the latter. Your committee never met with the disease actually *in* the clay soil, but only on the top of it. It attacks nearly every variety of vine. Its means of propagation of the disease here seems to be by agency of the insect taking wing, getting into the prevailing current of winds, then alighting and depositing its eggs on the leaves of the healthy vine plants; the eggs become hatched, and the insects make their way down to the roots. There is no evidence to show that the insects settle on any other vegetation. On going over the ground, the committee were pointed out the direction of the disease through the different vineyards, and it was plainly along the course of the prevailing winds, whilst other parts of the diseased vineyard were comparatively free from the phylloxera. The time most to be dreaded for the spread of this scourge is at the season when the insect takes wing.

There appears, so far as experiments have at present been carried on, no remedy or cure for this disease. Bisulphide of carbon would seem to have been more frequently applied in France than any other remedy, but the evidence of its success is at best uncertain, and in the colonies the cost of the material, and the repeated application necessary, practically prohibit its use on a large scale, and there was a concensus of opinion that the only effectual remedy yet known is to uproot not only the dead and diseased vines but contiguous vineyards, even at the cost of having to concede to owners of the latter some measure of compensation for the step taken in the interest of all. The committee have been compelled to come to the conclusion that, although throughout Europe and America a combination of scientific research and practical skill has been concentrated on the subject of this malignant pest, no preventive or destructive agency has been found short of the complete eradication of the plant. A reward of £12,000, offered in France for the discovery of a practical and effective remedy, up to this moment remains unclaimed.

It has been shown to your committee that the viticulturists and most eminent scientists of Europe and America, for some time past, have been gradually convinced that the adoption of propagating from seeds of indigenous vines obtained from countries and districts uncontaminated by a possible hybridization (except this may have happened naturally among the wild vines in the state of nature) is the safest and most effective means of replacing the destroyed vines and of preserving this most valuable industry. Vines grown from these seedlings, under favorable treatment,

exhibit remarkable fecundity and growth, and may be cultivated into excellent fruit or afford stocks on which to graft; the roots from the seedlings take strong hold of the ground, and are stated to have been found to be phylloxera proof, as the original plant has a tap root of a hard nature impenetrable to the insect, its root system being normal, and it is stated these wild vines flourish in the midst of vineyards which have been destroyed by the pest.

This is the only cloud upon the prospects of the Victorian *vigneron;* and we believe the phylloxera has not made its appearance in either of the other Australian colonies, while in each every precaution has been taken to prevent the invasion of the terrible scourge.

O. M. SPENCER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Melbourne, September 6, 1881.

NEW ZEALAND MANGANESE.

REPORT BY CONSUL GRIFFIN, OF AUCKLAND.

Manganese was discovered in New Zealand in the early settlement of the colony. The first place where it was found was on the island of Waiheki, in the Auckland Harbor, about eighteen miles from the Queen street wharf. It was discovered first on the estate of Mr. G. Graham, and subsequently on that of Mr. S. Waters. For many years nothing was done to turn this metal to profit. Several years ago it was found in the Bay of Islands district, a few miles from the town of Russell, the ancient Kororareka, the first capital of New Zealand. Afterwards it was found in the Mongonui district, a considerable distance to the northward of Russell. The deposits in the Mongonui district have never yet been worked, but those at Russell and Waiheki have furnished an article of export for several years past.

The deposit first discovered at Russell has been turned to advantage by London capitalists who purchased the land upon which it was found, and sent a manager to take charge of the property, and to develop its resources. Whether this has been done to the satisfaction of the owners of the property or not, the people have no means of judgiug, as the association is a private one and the transactions not made public.

On several occasions the colonial manager has been changed, and from this circumstance it is inferred that the venture has not been so satisfactory as the proprietors desired. The deposits on Waiheki being on private property were utilized as soon as an export of the mineral was established. The principle employed in these cases, I believe, was the royalty system which, so far as is known, has proved satisfactory to all parties concerned. Some of these manganesian ores have proved very rich, many of them assaying over 80 per cent. of the metal. Although the export has been steady during the last few years it is likely to be largely increased in the near future. The London association, working their deposits at Russell, do not appear to have been of an enterprising disposition, and deposits of rich manganese ore on Crown lands, alongside the section of land they were working, seem to have been allowed to lie unheeded. Recently, however, these fresh deposits were discovered, and as they are convenient to deep water for shipping purposes, the discoverer made application to the government for the lease of the section of land containing the mineral, which was in due

course granted upon the terms provided by act of parliament for the purpose. These men have taken into association with them several large capitalists, who are setting to work vigorously, and in a short time this new source of supply will be in full working order. Rails for tramways, carriages, &c., have been sent to the place of operations, a staff of men employed, and all the steps necessary for vigorously prosecuting the mining operations, have been taken. As this enterprise will be managed on the spot and colonial capital employed, the hitches that usually occur when mining operations are managed a long distance from the scene of operations, will, in all likelihood, be avoided. Capt. W. C. Daldy, of Auckland, informs me that large deposits of manganese are found on the island of Kawaw, the beautiful residence of Sir George Grey, K. C. B., formerly premier of New Zealand. Captain Daldy says the mines there have been profitably worked and that considerable quanities of the ore have been exported.

MODE OF WORKING THE MINES.

The mode of working the lodes consists in "winning" the ore and in what is called "hand picking," this being done by skilled workmen, known as "sorters," the object being to obtain as high a percentage of binoxide as possible. No machinery has as yet been used in New Zealand for dressing the ore, although the addition of some method of manipulating the ores and the "gangue," or mineral matter, in which the ore is mixed, will in the future be required to economize that portion of the ore now lying waste.

THE NATURE AND USE OF MANGANESE.

Manganese belongs to that class of metals of which iron is the best known representative. It is of a white-greyish color and of remarkable brilliancy. Its texture is granular and has neither taste nor smell. It attracts oxygen when exposed to the air, and its color is changeable, and becomes grey, violet, and black.

The metal is so hard as to scratch glass and steel, and is only fused at a white heat. It is used in the manufacture of glass. It frees that article from the tinge of iron and other colors. On account of its use in this way it is sometimes called "glass makers soap" (*savon de verriers*). Manganese, however, is principally employed in the production of chlorine for bleaching; the chloride of lime of commerce receiving its chlorine from that source. Manganese forms six different oxides, viz, protoxide, sesymoxide, the red oxide, the binoxide, or peroxide, manganic acid, and permanganic acid. Permanganic acid is obtained by treating a solution of *permanganate* of baryta with sulphuric acid. The most important of its salts is the permanganate of potash, so extensively used in analytical chemistry, and is the basis of Condy's disinfectant.

Manganese, I learn from a late member of the London Lancet, is also one of the ingredients of Fowler's hyphophosphates. It is believed to be allied in its properties, as a blood salt, to iron. Its use is highly commended by the American Medical Journal, when combined with quinine, lime, and potassa, as a nerve and blood tonic.

MANGANESE BRONZE.

A new substance, known as manganese bronze, is now being very generally used in the construction of machinery. It consists of manga-

nese and copper, the proportion of copper being 78 per cent. The new propeller of the Pacific Mail steamer Zealandia is made of manganese bronze. The great strength of this material and its perfect freedom from corrosion render it possible to make the blades of the screw very much thinner than those composed of other metals, and, in addition to this, a perfectly smooth surface for the blade is obtained, thus almost entirely doing away with the loss occasioned by friction of the blades upon the water. It is claimed that the new propeller of the Zealandia has increased the speed of that vessel fully 1½ knots per hour.

EXPORT OF MANGANESE.

Although manganese has been exported from New Zealand in considerable quantities for many years, it was not specified in the list of colonial exports until 1878, and during that year 2,516 tons, of the value of $50,080, were exported. The manganese that had previously been exported was included under the general heading of "copper and other metals," and I have therefore no means of determining the exact quantity that was exported previous to 1878. The following table shows the quantity and value of manganese exported from New Zealand from 1878 to 1880, inclusive:

Year.	Quantity, in tons.	Value.
1878	2,516	$50,080 00
1879	2,140	41,690 00
1880	2,611	52,115 00

The extent of the trade for this year will probably be limited by the quantity sailing vessels will take from here to London and New York. The price is so fluctuating in both cities that the exporters cannot afford to pay a heavy freight upon it. It is sometimes taken from here as ballast, or at a nominal freight. I have known, however, exporters to pay as high a rate as $4 and $5 per ton.

The price of manganese in London by the standard, which is fixed at 70 per cent., is about 62½ cents per unit, advancing or receding. It, however, becomes unsalable when it gets below 70 per cent. A small quantity of manganese yielding 75 per cent. was sold here last week for $15 per ton. It is generally shipped in bulk, but I have seen it sometimes put in strong canvas bags.

Rich mines of manganese are worked in Germany, Spain, Norway, Russia, and in various parts of the United States. Great Britain, however, receives her principal supply from Russia, where some of the most valuable mines in the world have been discovered, much of the ore yielding over 90 per cent. of oxide.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Auckland, N. Z., September 13, 1881.

NEW ZEALAND TARIFF.

REPORT BY CONSUL GRIFFIN, OF AUCKLAND.

I have the honor to report that an act of Parliament was passed (see copy inclosed) on the 24th of last September making material alterations in the customs and excise duties of New Zealand. The new law went

into effect on the 1st of October, 1881. Hitherto the custom duties of the colony have been imposed chiefly with a view of raising a revenue rather than for the purpose of encouraging home manufactures and industries, but it appears from the changes recently made that the government is now very favorably inclined towards the policy of protection. For instance, heretofore bacon and hams were admitted free, but now a duty of 2 pence (4 cents) per pound is charged upon them. It is thought that this tax will drive American hams and bacon from the market. The New Zealand hams and bacon are of fair quality, but they do not begin to compare in excellence and flavor with those from the United States. Indeed, American pork is so much liked here that some time will elapse before New Zealand merchants will cease to import it. The hogs raised in the provinces of Canterbury and Otago are corn fed, which, of course, improves the quality of New Zealand pork, but the art of curing hams and bacon is not yet fully understood in this colony. The best New Zealand hams that have come under my observation were cured by I. T. Green and I. Gilmor & Co. Their wholesale price is from 6½*d.* to 7½*d.* (13 to 15 cents) per pound. This is fully 8 cents per pound lower than the American hams.

Jams and jellies.—An extra duty of 1½ pence (3 cents) per pound has been levied on jams, jellies, and marmalade. It is believed that this was done to encourage fruit-growing and the manufacture of jams and jellies.

Maize.—Maize is also heavily taxed; the duty charged on that article now is 9 pence (18 cents) per 100 pounds, equal to about 10 cents per bushel. This tax is hailed with great satisfaction by the settlers of Opotiki and the east coast, and some argue that the duty should be doubled and trebled, so as to place importers at a still greater disadvantage.

Fancy and scented soaps.—Amongst the articles which appear to be strongly protected are fancy and scented soaps. The duty on them was formerly 15 per cent. ad valorem, but it has been raised to 25 per cent. ad valorem. Several firms have been engaged for many years in manufacturing toilet soaps, notably M. Bardsley & Son and McLeod Brothers, at Dunedin. The former firm, established in 1859, quote seven varieties in toilet soaps and eight varieties in soaps for domestic use, namely:

Toilet soaps.—Old brown windsor, New Zealand rose squares, transparent glycerine tablets and bars, oat-meal soap, assorted squares and oval tablets, marbled glycerine squares, coal-tar soap.

Prices of domestic soaps and candles.

SOAPS.

Description.	Grocers' price.	Bardsley's selling price.
	Per bar.	*Per bar.*
Prize pale (star brand)	1*s.* 3*d.* to 1*s.* 4*d.*	1*s.* 1*d.*
People's soap	New brand	1*s.*
Carbolic disinfectant	do	1*s.*
Laundry	1*s.*	10*d.*
Blue mottled		10*d.*
3-crown	11*d.* to 1*s.*	9*d.*
2-crown	7*d.* to 8*d.*	6*d.*
Household	5*d.* to 6*d.*	4*d.*

Buying in quantities the prices quoted are:

Prize pale (star brand), box of 1 cwt..... 32*s.*
Prize pale (star brand), box of ½ cwt..... 16*s.*

Prize pale (star brand), box of ¼ cwt	8s. 6d.	
People's soap, box of 1 cwt	28s.;	¼ cwt. 14s.
Carbolic do	29s.;	¼ cwt. 15s.
Laundry do	25s.;	¼ cwt. 13s.
Blue mottled do	28s.;	¼ cwt. 14s. 6d
3-crown do	22s.;	¼ cwt. 11s. 6d.
2-crown do	17s.;	¼ cwt. 9s.
Household do	13s.;	¼ cwt. 6s. 6d.

CANDLES.

De Roubaix's (sperm), per box of 25 pounds	9d. per pound.
" " 6-pound packets	9½d. per pound.
" " 1-pound packets	10d. per pound.
Superior mould, per box of 12 pounds	5d. per pound.
" " 4-pound packets	5½d. per pound.
" " 1-pound packets	6d. per pound.

Also, paraffin, bedroom, piano, and carriage candles.

It is worthy of remark here that the New Zealand manufacturer sells the latter staple at a considerable reduction on the grocers' and other vendors' prices.

MAZENA AND CORN FLOUR.

Mazena and corn flour is now taxed at 1 shilling (25 cents) per 100 pounds. Last year it was free. Two years ago the duty on it was 2 shillings (50 cents) per 100 pounds. I am at a loss for a satisfactory explanation of these frequent changes.

IRON NAILS.

Iron nails are taxed at 2 shillings (48 cents) per 100 pounds.

AMERICAN PRODUCTS.

A large number of American products upon which a duty of 15 per cent. ad valorem was charged now come in free. They are as follows: Axes, hatchets, spades, shovels, picks, iron-wire netting, carriage material, cloth, shafts, spokes, felloes, prints, tailors' trimmings, brown canvas, silesias, verona, Italian cloth, flexible coat and vest metal and bone buttons, silk, worsted, and cotton binding and braids, sewing cotton, silks, and thread, and rough brown holland.

Since the said tariff went into operation the inspector of customs has informed me that there have been some discussions affecting certain goods which were supposed to come in free. For instance, *cretonnes chintzes*, plain, colored, and printed sateens, cotton, Italian cloth-wool, cotton French satteen, and muslin of all kinds are taxed 15 per cent. ad valorem. Wincey, which in fact has the appearance of wool, although cotton, is admitted free, and so are the various kinds of cotton shirtings which look like wool. Window hollands and similar curtains are taxed likewise. Turkey red and twill, wood oil baize, oatmeal cloth, book muslin, fancy and white muslin, Madras and Indian muslin, all pay a duty of 15 per cent. ad valorem. This duty of 15 per cent. is in reality 16½ per cent. For instance, the custom-house authorities add 10 per cent. on every invoice of goods; that is, for every $100, 10 per cent. is added on cost for expense in importing, which makes $110; add to this 15 per cent. ad valorem, would make 16½ per cent. on first cost of goods.

TOBACCO AND SPIRITS.

The excise duty on tobacco has been reduced from 3 shillings and sixpence (87½ cents) to 1 shilling (25 cents) per pound. In a former report to the Department of State I expressed the opinion that some parts of the North Island of New Zealand were especially adapted to the growth of the best qualities of tobacco, but the duty hitherto proved a bar to its production or the establishment of manufactories. Already several American houses in New Zealand have opened manufactories for tobacco, and it is thought that they will prove successful. It will be seen from the act altering the duties and excise that in lieu of the duty imposed by the third section of "the excise duties act, 1874," there shall be paid on all spirits distilled within the colony the following excise duty: On every gallon of spirits, of proof, and so on in proportion for any greater or less strength of proof, and for any greater or less quantity than a gallon, eight shillings per gallon, and such rate of duty shall (unless previously altered by the general assembly) remain in force until the 31st day of December, 1886.

DRAWBACKS.

If excise duties are increased before the 31st of December, 1886, no claim for compensation can be entertained. The governor is empowered to specify articles on which drawbacks may be allowed, provided that no drawback of duty shall be allowed on spirits, cordials, liquors, bitters, tobacco, cigars, cigarettes, snuff, opium, wine, coffee (ground), chicory, spices, perfumery, and jewelry, nor shall drawbacks be allowed on any goods which shall be of less value than the amount of draw back claimed in respect thereof. A drawback of full duty paid on importation may be allowed on any goods entitled to drawback of duties if exported in original packages as imported; provided that the number and date on which the import duty was paid be satisfied in entry for drawback, and, in case of goods liable to ad valorem duty, that original stamped invoices, according to which duty was paid when goods were unpacked, be produced along with such entry, and if the collector thinks fit that goods be compared therewith prior to being shipped, and provided, also, that the officer of customs in every case satisfies himself and certifies on the entry that such goods are in all respects in the same condition and are of the same value as when entered for duty on importation. A minimum penalty of £200 is imposed for entering goods not entitled to drawback or for entering at a higher rate than allowed.

THE EFFECT OF THE NEW TARIFF.

The encouragement given to the manufacturers of perfumes and other articles in which spirits are necessary ingredients, will, it is supposed, largely increase the manufacture of these articles. Heretofore the manufacturers have labored under great disadvantages, the duty on spirits alone being 14 shillings (about $3.50) per gallon, and they had to pay a still higher duty per gallon for spirits above proof. For the manufacture of perfumery the strongest spirits of wine is necessary; that which is most generally in use is 66 O. O. P. (above proof), and cost the manufacturer in duty alone fully $5.50 per gallon. The new act, as previously mentioned, does away with this duty under certain restrictions, thus allowing perfumery, and other toilet articles in which spirits are used, to be manufactured in bond. Moreover, all imported perfumed

spirits and cologne water are taxed at the rate of 21 shillings ($5.25) per gallon. While the new tariff will afford protection to a limited number of home manufacturers, it is questionable whether it will increase the revenue of the colony or not; indeed, many are of the opinion that it will cause a perceptible falling off in the custom-house receipts.

THE REVENUE OF NEW ZEALAND.

If the revenue of New Zealand is to be taken as evidence of the prosperity of the colony, the returns for the quarter ending September 30, 1881, certainly show a very gratifying state of affairs. The total revenue collected at all the ports of New Zealand for said quarter was $19,402.15, against $15,626.40 for the corresponding quarter of 1880.

I give below a table showing the general revenue of New Zealand for each year since 1870.

Revenue of the Colony of New Zealand for each year from 1870 *to* 1880, *inclusive.*

1870	$5,923,195	1876	$17,901,470
1871	5,710,580	1877	19,580,015
1872	8,374,080	1878	20,839,445
1873	13,881,940	1879	15,674,525
1874	15,343,060	1880	17,799,410
1875	14,069,640		

DUTY ON STATIONERY.

All articles under this heading are taxed with ad valorem duty of 15 per cent., together with 10 per cent. added on the amount of invoice, or, in other words, the goods are valued by the government as being 10 per cent. more value to the importer when receiving them. Small articles in silk for office use in binding legal documents are also subjected to in ad valorem duty of 15 per cent. with the additional 10 per cent. already referred to. There are exemptions in stationery, the utility of which is not altogether clear to me, for instance: "Paper, writing and machine made, of sizes not less than the size known as demy (20 by 15½ inches), when in original wrappers, and with uncut edges as it leaves the mill." An importer of this staple is exempted from an ad valorem of 15 per cent. and 10 per cent. as above explained, by ordering the goods unruled and with uncut edges.

There is, I believe, a monopoly of these goods existing here. Everything of this kind in use by the law and commercial community is imported from England, and the prices of this staple are exorbitant in the extreme.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Auckland, N. Z., October 28, 1881.

AN ACT to alter the duties of customs and excise

[24*th September*, 1881.]

* * * * * * *

2. On and after the first day of October, one thousand eight hundred and eighty-one, in lieu of the duties of customs heretofore chargeable on the articles next hereinafter mentioned, there shall be levied, collected, and paid to Her Majesty, her heirs

and successors, upon the same on importation into the colony, or on being cleared from any warehouse for home consumption, the several duties following, namely:

	£	s.	d.	
Bacon and hams	0	0	2	the lb.
Iron nails	0	2	0	the cwt.
Iron tanks, of and under 200 gallons	0	2	6	each.
Jams, jellies, marmalade, and preserves	0	0	1½	the pound, or reputed package of that weight, and so in proportion for packages of greater or less reputed weight.
Maize	0	0	9	the 100 lb.
Maizena and corn flour	0	1	0	the 100 lb.
Soap, scented and fancy	25 per cent. *ad valorem*.			
Woolpacks, of the kind known as "wool pockets," and not exceeding the measurement of 18 x 21 x 30 inches	0	1	3	the dozen.

3. The articles next hereinafter mentioned shall be exempt from duties of customs on the importation thereof into the colony, namely:

Alum.
Axes and hatchets.
Borax.
Calicoes, white and gray, in the piece.
Carriage materials—namely, American cloth, shafts, spokes, felloes, naves, and tacks.
Chaff.
Cheese cloth.
Colored cotton shirtings, in the piece.
Corduroy (cotton), in the piece.
Cotton dress prints, navy blue, or other similar description of cotton piece goods.
Gold size.
Hessian bags.
Iron-wire netting.
Moleskin, in the piece.
Nitric acid.
Rough brown holland, in the piece.
Sewing cottons, silks, and threads.
Spades, shovels, and forks.
Tailors' trimmings—namely, black and brown canvas, silesias, verona, Italian cloth; flexible coat and vest, metal, and bone buttons; silk, worsted, and cotton bindings and braids.

4. Section 4 of "the customs tariff act, 1880," is hereby repealed.

5. In lieu of the bonus specified in section twelve of "the tobacco act, 1879," the following provision shall take effect, on and after the passage of this Act, namely:

The duty upon tobacco manufactured in the colony from tobacco grown in the colony shall be one shilling the pound; and this rate of duty shall remain in force until the thirty-first day of December, one thousand eight hundred and eighty-six, unless previously altered by act of the general assembly.

6. If the excise duty on New Zealand grown and manufactured tobacco be increased before the thirty-first day of December, one thousand eight hundred and eighty-six, or if the laws or regulations respecting the manufacture of tobacco in the colony be altered or amended before that date, no claim for compensation shall be entertained or sum of money be paid out of the public moneys of the colony to any tobacco manufacturer or person in any way interested in the growth, manufacture, or sale of tobacco, in respect of such increase of duty, or alteration of laws or regulations respecting the manufacture of tobacco.

7. The commissioner of customs may from time to time approve and appoint warehouses or places of security at any port for the manufacture therein, under such conditions as he may from time to time prescribe in that behalf, of perfumery and other articles in which spirit is a necessary ingredient; and he may make regulations for removing spirits to and securing them at such warehouses or places, and he may direct in what cases, and with what sureties, and to what amount security by bond or otherwise shall be required in respect of any such warehouse or place, or in respect of any spirits deposited therein; and any spirits when manufactured into perfumery or other articles so that the same shall not be potable may be delivered free of duty.

8. The twelfth and thirteenth sections of "the drawbacks act, 1872," and the whole of "the drawbacks act amendment act, 1873," shall be and are hereby repealed on and from the first day of January, one thousand eight hundred and eighty-two.

9. The governor may, by order in council from time to time, specify the articles on which a drawback of duty paid on importation into New Zealand may be allowed on exportation therefrom, and the rate of drawback to be so allowed; and may alter and cancel any such order, and may approve of regulations and conditions under which drawbacks may be allowed: Provided that no drawback of duty shall be allowed on spirits, cordials, liqueurs, bitters, tobacco, cigars, cigarettes, snuff, opium, wine, coffee (ground), chicory, spices, perfumery, and jewelry; nor shall drawback be allowed on any goods which shall be of less value than the amount of drawback claimed in respect thereof.

10. A drawback of the full duty paid on importation may be allowed on any goods entitled to drawback of duties, if exported in original packages as imported: Provided that the number and date of the entry on which the import duty was paid be specified in the entry for drawback, and, in the case of goods liable to *ad valorem* duty, that the original stamped invoices according to which the duty was paid when the goods were imported be produced along with such entry, and, if the collector thinks fit, that the goods be compared therewith prior to being shipped: And provided also that the proper officer of customs in every case satisfies himself, and certifies on the entry, that such goods are in all respects in the same condition and are of the same value as when they were entered for duty on importation.

11. The commissioner of customs may from time to time make regulations for the repacking, clearance, and shipment of goods entitled to be cleared for drawback, and from time to time may alter or cancel such regulations.

12. If any person shall knowingly enter or attempt to enter for drawback any goods not entitled to drawback, or at a higher rate of drawback than is for the time being allowed on such goods, or at a higher value for drawback than the fair market value of such goods at the port at which the same are entered for drawback, or as of a greater quantity or weight than the actual quantity or weight of such goods, he shall forfeit the sum of two hundred pounds, or treble the value of the goods, or treble the amount of the drawback claimed, at the election of the commissioner of customs; and all such goods, and the packages containing the same, together with all other goods contained therein, shall be forfeited.

13. Every sum of money which shall have been overpaid as duties of customs, or which shall be due upon any drawback debenture, or any certificate or other instrument for the payment of any money out of the duties of customs, may be paid by any collector of customs out of any customs revenue in his hands, in such manner as the commissioner of customs may direct, and every such payment shall be allowed by the controller and auditor-general in the settling or auditing of the accounts of the customs.

14. The duties of customs imposed by this act shall be raised, levied, collected, and paid under the provisions of "the customs regulation act, 1858," and "the customs regulation act amendment act, 1868," and subject also to all such provisions and regulations as may for the time being be in force for the collection, management, and receipt of the duties of customs in the colony; and all fines, forfeitures, penalties, and charges recoverable under this act may be recovered and applied in the manner directed by "the customs regulation act, 1858," and "the customs regulation act amendment act, 1868."

15. The provisions of "the customs tariff act, 1866," "the customs tariff act, 1873," "the customs tariff act, 1878," "the customs tariff act, 1879," and "the customs tariff act, 1880," not inconsistent with or expressly altered by or under this act, shall be read with and as part of this act.

TRADE AND RESOURCES OF NOVA SCOTIA.

REPORT BY CONSUL HOBART, OF WINDSOR.

The past year has been marked by a very great improvement in trade and manufactures generally in this portion of Nova Scotia, induced by general revival of commerce in all other countries and by the tariff of 1878.

One of the immediate effects of the increased tariff on cotton goods is the building of a cotton factory in this town. The company started with a paid-up capital of $200,000. They have in process of erection a fine brick building, and have already engaged the machinery for a factory of 10,000 spindles, which is expected to be in operation early

the coming season. There has also been erected at Yarmouth, in this district, a woolen factory at a cost of $50,000.

These with other new enterprises seem to mark a new era in the manufacturing interests of Nova Scotia.

There is a general feeling of confidence that there will be still further improvement.

Gypsum trade.—The export of the white gypsum for calcining has increased, owing to the larger demand in the United States. The shipment of the blue or land plaster (gypsum) will not vary much from last year. Freights have ranged from about $1.75 to $2 per ton to plaster ports in the United States.

Crops.—The hay crop has been very large, but owing to the almost uninterrupted dull weather during the usual time of harvesting, a large part of this crop will be very much injured, consequently good hay is very scarce and high and will be worth from $10 to $12 per ton, whereas the poorer article will be sold at almost any price. The crops of wheat, oats, barley, &c., are good, but are very much damaged by the unfavorable weather.

Potatoes and other root crops generally are very light and very inferior. As to quantity, not 50 per cent. of last year's yield seems to have been raised.

Potatoes are worth about 60 cents per bushel in this market, whereas last year they sold from 25 to 30 cents per bushel. Oats are worth about 40 to 45 cents.

The yield of apples, plums, and other fruit is very light, the quantity not being over one-half of last year, and the quality is generally very inferior. For this reason, and the large demand for shipment to England and elsewhere, prices are much higher than the previous year. Good winter apples are worth $2.50 per barrel.

As a whole, farmers have not had a prosperous season.

Ship-building.—Ship-building has been carried on to the usual extent. Quite a number of large vessels for foreign trade have been built and launched during the season, also a number of smaller vessels for the coasting trade. The cost of construction is somewhat increased from last year, owing to the rise of price in materials and labor.

Mining.—There has been quite an activity in the mining and shipping of coal, owing to the increased demand. Aside from home consumption, the coal mined is mostly shipped to the United States and the West Indies. Notwithstanding the higher price of anthracite coal in the United States there has been an increased demand here. Manganese ore has been shipped in quite large quantities from this section to New York and Boston, the price having advanced from $40 to $130 per ton, for the first quality, during the last two years.

There seems to be a prospect of larger amounts being exported in future, as the demand is constantly increasing. It is mostly mined in Cheverie, Walton, and Tenny Cope, in this county.

Lumber.—Owing to the increased demand and higher prices for lumber in the United States, preparations are being made for larger operations. There is a prospect of more remunerative prices than heretofore. Spruce lumber is now selling for $8 per M, with a prospect of going higher.

Emigration.—Although there has been large emigration to the United States during the last year, it has been sowewhat checked of late by increased demand for labor at home.

General remarks.—Since my last report two steamers have been placed on the line between Annapolis and Boston, connecting with the Windsor

and Annapolis Railway, a new enterprise, which thus far has been successful, carrying a large number of passengers and a large amount of produce to and from the United States. This enterprise promises to be a permanent and profitable investment.

The rate of sight exchange between New York and this port is ⅛ per cent., while American currency, in all business transactions, passes at par.

It cannot be denied that there is a strong desire on the part of the people of this section of the Province of Nova Scotia for a reciprocal trade treaty with the United States, as they feel their material interest lies in that direction, and the United States would, in case of such treaty, be the natural market for this portion of Nova Scotia.

D. K. HOBART,
Consul.

UNITED STATES CONSULATE,
Windsor, Nova Scotia, December 1, 1881.

THE VITICULTURAL EXHIBITION AT BORDEAUX.

REPORT BY CONSUL ROOSEVELT.

I have the honor to transmit herewith translations of letter, rules, and regulations for the Philomathic Society of Bordeaux, for an exposition of agricultural and industrial products, to be held at Bordeaux from June 1 to November 1, 1882.

I may add that the circular letter to the minister of agriculture and commerce at Paris, mentioned in their letter, has not been received.

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Bordeaux, November 9, 1881.

BORDEAUX, *September* 7, 1881.

To the Consul of the United States:

SIR: The Philomathic Society of Bordeaux will open its twelfth general exposition of agricultural and industrial products and ancient and modern art on the 1st of June, 1882, under the auspices of the state, the general council of the Gironde, and the chamber of commerce of Bordeaux.

Spain and Portugal are the only foreign countries invited to take part in all branches of the exposition, but so far as wines, spirits, liquors, and fermented drinks are concerned it will be universal. In calling your attention to these facts, we wish to ask you to do us the favor to inform the Government of the United States that all wine producers and others interested in this branch of industry in that country are cordially invited to take part in our exposition.

The interest which is ordinarily attached to viticultural expositions is greatly increased at present on account of the critical condition of the vineyards, owing to the presence of phylloxera in the most productive district, its disastrous effects in many places, and its menacing aspect to all. Therefore the centralization at Bordeaux of samples of the wine products of the world, added to those of the Gironde and of France, will supply an occasion to examine the extent of this valuable production, its increase in various countries, and to consider the resources which commerce and the public may draw from it.

Spirits, liquors, fermented drinks, including beer, cider, &c. will form an important feature of this exposition, and we wish to make this branch as varied and extensive as possible.

We have the honor to send you herewith copies of the principal documents published by our society, relative to the projected exposition. These are composed of:

1st. A letter to the minister of agriculture and commerce at Paris, dated May 24, 1881, from which you can ascertain all the facts concerning the status of the Philomathic Society, its history, and the importance of its labors at Bordeaux.

2d. Invitations to exhibitors.

3d. General rules of the exposition.

4th. Blank application for space.

We will be greatly obliged, Mr. Consul, if you will take the trouble to call the attention of the government you represent to these documents, and to inform your countrymen, who are interested, that we shall be most happy to have them accept our invitation.

We hold as many copies of these documents as you may wish for distribution in the United States at your disposal.

A special commission is charged with the organization of that portion of the exposition devoted to wines, spirits, and fermented drinks, and as soon as it has finished its deliberations we will hasten to communicate its decision and to send you the circulars which are especially intended for exhibitors in this department.

We remain sir, yours, very truly,

ALFRED DANEY, *President.*

JULES COUTANCEAU, *Secretary.*

THE PHILOMATHIC SOCIETY OF BORDEAUX, FOUNDED IN 1808.

(Declared an establishment of public utility.)

Twelfth general exposition of agricultural products, industry, and industrial and ancient art, under the patronage and with the support of the state, the general council of Gironde, and the municipality and chamber of commerce of Bordeaux.

1882.

SECTION III.—WINES, SPIRITS, LIQUORS, AND FERMENTED DRINKS.

Form of application for space for exhibitors in this section.

Name: ——— ———.
Residence: ———.
Detailed list of ———.
Articles ———.
Exhibited ———.

The exhibitor should state if he is a proprietor of vineyards. As such he can only exhibit the products of his own property.

1. Name of his property, state, and county in which it is located.
2. Number of acres planted with vines.
3. Name of vines and date of plantation.
4. Extent of production.
5. Expense per acre of cultivation,
6. The price (in exhibtor's district) of new wine, brandy, and alcoholic products.
7. Quality of goods shown, class, year of crop, price.
8. List of prizes from expositions and other awards gained by the exhibitor.
9. Any facts to which the exhibitor wishes to draw the special attention of the jury.

Information a wine merchant should supply.

1. Name of firm and location of house.
2. Date of corporation.
3. Quality of articles exhibited; where produced; class; year of crop; price.
4. List of prizes from expositions, and other awards won by the exhibitor.
5. Any facts to which the exhibitor wishes to draw the special attention of the jury.

Information to be supplied by refiners and manufacturers of alcohol, liquors, and spirituous drinks.

1. Firm name and location of business.
2. Date of incorporation.
3. Date of beginning operations.
4. If the firm owns several factories, how many, and where located.

5. Extent of annual production.
6. Number of males and females employed.
7. Class of products exhibited; age and price.
8. Crude materials employed.
9. Indicate which were first ready for use.
10. Prizes and awards won by firm.
11. Any fact to which the firm may wish to call the jury's attention.

Information a brewer should supply.

1. Name and place of business.
2. Date of its establishment.

Facts to be supplied by makers of beer and cider.

1. Name and situation of property.
2. Number of acres devoted to the culture of articles exhibited.

General information.

1. Implements used and improvements made by exhibitor on his machinery and appliances.
2. Improvements introduced for the organization of labor in his establishment.
3. Any novel, more complete, and profitable arrangement for the use of crude materials and the utilization of waste.
4. New hygienic arrangements in factories.
5. Precautions against accidents.
6. Measures taken for the moral and material improvement of operatives, such as schools, quarters, funds for the relief of the sick and disabled, funds to raise pensions for those who are too old or feeble to work.

These rules were framed by the executive committee of the exposition, and are signed by Alfred Daney, president, Eugene Larronde, vice-president, and Jules Coutanceau, secretary, of the Philomathic Society of Bordeaux.

RULES AND REGULATIONS.

PART I.

ARTICLE 1. The Philomathic Society of Bordeaux will open its twelfth general exposition of the Products of Agriculture, Industry, Industrial Arts, and Ancient Art on the 1st of June, 1882.

This exposition will be given under the patronage and with the aid of the State, the council of the Gironde, and the municipality and chamber of commerce of Bordeaux.

It will remain open from the 1st of June to the 1st of November, 1882, in the Place des Quinconces, Bordeaux.

ARTICLE 2. Agricultural and industrial products and industrial and ancient arts will be admitted from France, the province of Algeria, French colonies, and Spain and Portugal.

ARTICLE 3. Wines, spirits, liquors, and fermented drinks will be admitted from all countries. Wines and brandies may be exhibited by proprietors of vineyards, and wine-merchants, brewers, cidermakers, and distillers of liquors, vermouth, and spirituous drinks will be allowed to exhibit the products of their respective industries.

ARTICLE 4. Exhibits should be sent with freight prepaid before the 1st of May, 1882. After that date no exhibit will be received. Packages for the exposition should be addressed very plainly, as follows: "*Exposition de Bordeaux.*" III^eme^ *Section, Monsieur le President de la Société Philomathique.*

ARTICLE 5. Every article exhibited must remain till the end of the exposition, and nothing can be withdrawn except with the written permission of the society.

PART II.

ARTICLE 6. Each exhibitor must previously sign a "request for admission," such as is sent with these rules, and which comprehends on the same sheet a blank form that should be filled up to give the required information as accurately as possible.

The applications for admission may be obtained from the office of the society at Bordeaux, or from French consuls residing in the chief cities of foreign countries.

ARTICLE 7. All applications for admission must reach the president of the society before the 1st of February, 1882.

ARTICLE 8. Each exhibitor in the 3d section will be charged for space occupied at the following rates:

1. For six bottles, at least, 10 francs. For each extra bottle, 1 franc.

(The above tariff includes installation and arrangement of exhibit, which is made at the expense of the society.)

2. Each square yard of surface, 25 francs (less than half a yard square will not be let), and installation under this tariff is to be made at exhibitor's expense.

3. Special exhibits in locations selected by the exhibitor will be authorized by the society at so much on the site, and so much on the price.

The settlement of these charges is to be made during the two months following the opening of the exposition.

ARTICLE 9. The society reserves the right to reject or to modify, at the expense of the exhibitor, any installation which it considers inconvenient or unsuitable.

ARTICLE 10. The signing of the application for admission entails upon each exhibitor the obligation to submit to all the conditions set forth in the rules, notably those mentioned in article 8th, and to all measures of order and security which the society may prescribe.

ARTICLE 11. Exhibitors living outside of the department of the Gironde must have a representative at Bordeaux.

PART III.

ARTICLE 12. Bottles of wine exhibited must bear labels giving class, year of crop, and the name and address of exhibitor.

The labels should indicate whether the wine, of which the exhibit is a sample, is kept in casks or bottles.

ARTICLE 13. The prices and conditions of sale may be marked on the labels, or in the exhibitor's descriptive list.

ARTICLE 14. Besides the bottles intended for each exhibit, the following additional bottles must be sent to be sampled by the jury:

Three bottles of each variety and each year's crop of wines.

Two bottles of each kind of spirits, liquors, &c.

Beer intended for the jury's inspection may be sent in course of the first month after the opening of the exposition.

ARTICLE 15. There will be a sample room attached to the exposition. The counters will be placed at the disposition of exhibitors at their request, and by the payment of a fixed rent.

The sampling may be free or paid as the exhibitors wish, and they may sell specimen bottles which buyers may take away.

ARTICLE 16. Products intended for the jury will be deposited in large cellars outside the exposition. The same can be used by exhibitors who desire either to have their goods sampled there or to deliver specimens.

Products offered as samples, or sold as specimens, either in the cellars or in the exposition, must be the same as those exhibited.

ARTICLE 17. By authorization of the directors of customs and port collectors, the exposition grounds and cellars will be considered as bonded warehouse.

All customs passes accompanying exhibits of liquids should bear the following mention, "*liquide devant être exposé.*"

ARTICLE 18. Thanks to concessions obtained from the chief lines of railway in France and Spain, the transport of goods destined for the exposition has been arranged for at reduced rates. The following lines make a reduction of 50 per cent.

In France: State roads, south; Orleans, east, west, north; and Paris, Lyons and Mediterranean.

In Spain: Asturian, Gallicia and Leon; Tarragona, Barcelona and France; Almanza, Valencia and Tarragona.

Several steamship companies have granted the society the following reduced rates for the benefit of exhibitors:

The Messageries Maritimes, 30 per cent. reduction. Line to Brazil and La Plata. Lines of Mediterranean, The Levant and Indo-China.

The Transatlantique Company, 50 per cent. reduction. Lines to the West Indies, and in the Mediterranean.

The Bordelaise Company, 50 per cent. reduction. Lines to New York.

The society has also applied to other companies for concessions on a similar scale, and many will no doubt respond.

ARTICLE 19. The society will take all necessary precautions for the protection of exhibits, but will in no case be responsible for loss by fire, accidents, &c.

ARTICLE 20. At the close of the exposition, exhibitors must remove their goods within the delay fixed by the society, in default of which they will be stored at the exhibitor's expense.

PART IV.

ARTICLE 21. *Jury and awards.*—The jury will be composed of French and foreign members chosen from among the most approved authorities of science, Agriculture, industry, and commerce.

ARTICLE 22. The jury will fortify itself with whatever guarantees it may deem necessary to the accomplishment of its mission; and it reserves the right to exclude from the competition any exhibitor who attempts to depart from good faith.

ARTICLE 23. The jury will consider the part that working men have played in the progress shown, and any whose merit justifies it will receive suitable reward.

ARTICLE 24. The prizes awarded by the societies will consist of diplomas of honor; gold, silver, and bronze medals; and honorable mentions. The title of "Honorary member of the society" may be conferred by the General Assembly, on the recommendation of the executive committee.

ARTICLE 25. The distribution of awards will take place immediately after the close of the exposition. The occasion will be characterized by becoming *éclat* and solemnity, and the greatest publicity will be given to the list of awards gained.

These foregoing rules and regulations have been examined and indorsed by the executive committee, and signed by

ALFRED DANEY,
President.
EUGENE LARRONDE,
Vice-President.

JULES COUTANCEAU,
Secretary of the Philomathic Society of Bordeaux.

MANUFACTURE OF RAISIN WINE.

REPORT BY CONSUL TAYLOR, OF MARSEILLES.

Ever since the first appearance of phylloxera in the vineyards of France, those directly interested in grape culture, and many others indirectly interested in this leading industry, have been steadily at work seeking to discover some effective method by which the ravages of these destructive insects could be stopped. The government, and also the several agricultural societies, have not been backward in offering large premiums for this purpose. But it must be confessed that so far nothing has been found that, to any appreciable extent, accomplishes the end sought. Remedies applied vary widely in effect, according to the soil and climate; some cannot be used, owing to the formation of the ground, and some applications that are sure death to the insect unfortunately kill the vine at the same time.

The best evidence of the failure in finding the desired remedy lies in the statement of wine production in France for the last five years:

	Hectoliters.
1876	41,846,748
1877	56,406,363
1878	48,720,553
1879	25,769,552
1880	29,677,472

The highest production, that of 1877, was, by several millions of hectoliters, less than the average of previous years.

The effects of this great decrease in a staple production have been particularly felt in this region of France, which has suffered more than any other section from the ravages of the phylloxera. Hence, a notable decrease in the exportation, accompanied with a large increase of importation.

The imports of wine at this port amounted, in the year 1880, to 46,020,441 liters, while 14,407,918 liters only were exported. In ad-

dition to the enormous importation above quoted, we must take into account the novel product called "*Vin de raisins secs*," wine made out of raisins.

The importation of raisins and dried currants at this port reached the unprecedented figure of 36,394,527 kilograms in 1880.

Although there is no reliable basis for the assertion, it may be safely presumed that not one-tenth of this quantity was used for ordinary purposes. Indeed, all the raisins or currants coming from the East, viz, over 30,000,000 kilograms, may be confidently said to have been used in the preparation of this "raisin wine."

If it be taken into consideration that 100 kilograms of raisins are capable of yielding 325 liters of wine, a sufficiently accurate idea can be formed of the quantities of wine that have been manufactured in this way at this place alone.

Having had occasion to examine a book published by Mr. F. J. Audbert, of this city, on the art of making wine out of raisins, I was surprised to see that the process employed does not differ from that of manufacturing ordinary grape wine. Indeed, it is assumed that the grape, in going through the process of desiccation, loses none of its original elements save the water which enters into and forms about 80 per cent. of its composition. By restoring this lost water, the raisin becomes capable of yielding the same liquor as before it was dried.

This point being accepted as a principle, the raisins are carefully cleansed and freed from all impurities, and then allowed to soak in a tub with a quantity of water equal to the quantity of wine that is to be manufactured; the water must be as pure as possible, distilled water being preferable.

As above stated, a certain quantity of water generally gives an equal quantity of wine; there are of course limits to this quantity, and the quality varies according to the amount of water used. This is the statement given by Mr. Audbert; in that respect the French degree of wines of *liqueurs* represents the exact percentage of alcohol; thus wine at 20° contains 20 per cent. of pure alcohol.

One hundred kilograms of raisins soaked in 150 liters of water yield wine at from 18° to 22°; in 175 liters of water, yield wine at from 15° to 18°; in 200 liters of water, yield wine at from 13° to 15°; in 225 liters of water, yield wine at from 12° to 14°; in 250 liters of water, yield wine at from 11° to 13°; in 275 liters of water, yield wine at from 10° to 12°; in 300 liters of water, yield wine at from 8°.5 to 11°; in 325 liters of water, yield wine at from 6°.5 to 10°, according to quality and origin of raisin used.

The time during which the raisin is to soak is from forty-eight to fifty hours in winter and about forty hours in summer.

In all cases it must be carefully stirred, and is sufficiently soaked when it has resumed the appearance of a fresh grape, and when being pressed between the forefinger and the thumb it breaks with a report. This being done, the usual course for the prepartion of wine is strictly followed, little more care only being wanted.

The raisin is crushed in the usual way and placed in the fermenting tub, being well stirred at the beginning, so as to separate the grains from each other and start a regular fermentation.

The "must" is to be kept at a temperature of 15° centigrade, at least, and the cellar at an invariable temperature of from 15° to 20° centigrade. When properly conducted, the fermentation should be completed in twelve days, and the raisin wine is then ready to be drawn

and lodged in casks, going through the customary processes of sulphuring, clarifying, &c.

The wine is then claimed to be composed of exactly the same principles as fresh grape wine, but differs from it by its color, as it is always white, or, at the best, straw-colored. The wine of this region is dark red strongly alcoholized wine; therefore the raisin wine, in order to be easily disposed of, must be colored by artificial means, and here is where it may, in the hands of unscrupulous traders, become a danger to the consumer; some of the dyeing stuffs used for that purpose are poisonous in the extreme or otherwise injurious to health, and it must be said that the local authorities are especially watchful in this respect. Scarcely a week passes without some wine thus adulterated being condemned by superior order and poured out into the sea.

The raisin wine is also largely used in its natural state, that is to say, without being colored by artificial means, by simply mixing it with red wines that are so deep in color, that the adjunction of a certain quantity of raisin wine really improves both.

At all events, this industry is now thriving, and when honestly followed is undoubtedly beneficial to the country in which the use of wine has become so general as to be almost indispensable.

The central administration, which at first frowned on it, and even going so far as to denounce the manufacture of raisin wine as an offense and making the manufacturers liable to a prosecution for falsification of wine, has now and for some time past entirely changed its view of the matter. All the petty hinderances opposed in the beginning to this branch of industry have been removed, and at this day there is no distinction made between the raisin and the grape wine, both products being submitted to the same charges and duties, and in fact recorded under the same head in all the official books and returns.

I see no reason why the manufacture of raisin wine cannot be successfully carried on in the United States as well as here. Raisins can be purchased there nearly as cheap as here, the duty being but two and one-half cents per pound. The process of manufacture is simple, not requiring much machinery, neither a large expenditure of labor.

I believe that vast benefits would arise to our country by the production there of cheap wines to take the place of stronger and more harmful stimulants.

H. A. TAYLOR,
United States Consul.

UNITED STATES CONSULATE,
Marseilles, November 26, 1881.

EXPORTS AND IMPORTS OF AIX LA CHAPELLE.

REPORT BY CONSUL DUBOIS.

A majority of the large private fortunes which make Aix la Chapelle one of the wealthiest cities, according to its population, in Europe, were acquired by an immense trade with the United States. Many of the finest houses are built from the enormous profits which manufacturers reaped in our markets before the spirit of *specific* and *ad valorem* arose in our various ports of entry to check and confound them. Many of the solid and capacious factories which dot this consular district most plentifully were molded into form and prodigious activity by the rich

rewards which the export trade to the United States gave to those who were enterprising and fortunate enough to supply the strong demand. But the profits of those lucrative export days have been killed by American protection, and laid away in the grave of commercial decadence. The capital thus has become timid of investment in German manufacturing industry, and is now seeking American securities. The houses are waiting for better times to be repaired, and as for the factories, the smoke of their massive chimneys appears thin and sickly, the fires in the engines burn low, the music of the machinery has practically ceased, and, taken on the whole, they seem to be rather lonely. They have had their day in the North American trade, and are rapidly awakening to the fact that they must seek elsewhere for their markets if they would save their vast machinery from rust and ultimate ruin.

This condition of things is the natural result of events. When the spirit of *ad valorem* and *specific* arose it frightened and forced the German export trade into a shadow of its former greatness. As the American industrial fires began to glow, the German furnaces cooled. As the smoke of our factories grew thicker, the atmosphere surrounding the German manufacturing centers became clear. As our citizens engaged in manufacturing pursuits commenced to build costly residences, the German manufacturer curtailed his expenses. In fact the higher rose the thermometer of American enterprise the lower fell the industrial thermometer here, until now I have to report that the export trade in woolen goods and needles from this consular district to the United States is but one-third of what it was twenty years ago.

During the past year and a half, however, the business revival in the United States has galvanized into activity many of the industries here which have been ruinously lagging since the dark commercial days of 1873. In 1879 the export of woolen goods from this district amounted to $635,687.60. During the year 1880 the amount increased to $1,114,737.85, making an advance of nearly half a million of dollars in twelve months. This heavy increase had a most favorable influence on the various industries. Many mills had been working half force on half time, and many others were closed, but the effect of the great demand for black goods in the markets of New York, Philadelphia, and Baltimore aroused the sleeping looms in the silent factories, and enabled many of the mills to work a full force on full time, thus giving employment to 1,000 more workmen than were employed last year. The total number engaged in the woolen cloth industry in this district during the past year was 17,251.

Needles and pins.—Business has been more prosperous in this branch of the manufacturing industry than I was able to record it in my last annual report; but owing to the proposed French tariff the future is not so promising. The competition in France between the English and German needles and pins is so fierce that, although the sales are large, the profits have been very small, and should the French Government impose a tariff of five centimes per thousand, as is proposed, the German manufacturers will be compelled to withdraw almost entirely from that great market. As the German manufacturers export to France about five hundred millions of needles every year, the loss of this trade will be severely felt and thousands of skillful workmen will be thrown out of employment.

In sewing-machine needles the American article finds a market. One-third of one per cent. is the German *ad valorem* duty at present. This gives the American machine-needle manufacturers, whose needles are unquestionably the best, a chance to dispose of their entire surplus stock in the German markets. Every chamber of commerce in districts where

needle factories are found has rigorously urged an increase of 10 per cent. *ad valorem* on American machine-needles, and there seems to be a disposition on the part of the government to accede to this request.

The leather business is not prosperous, notwithstanding the protective tariff. All leather used for belting purposes sold at depressed prices. Cowhide and sole leather found a fair market. The heavy buyers in kid experienced heavy loss. A large exportation of calf-skin was made to America.

Three years ago, when it was known that a tariff was to be levied on leather, the enterprising American shippers sent into the storehouses an enormous amount of that article, which stock is still, in a measure, supplying the demand.

Machinery.—There has been an increase of the working forces in this industry of about 20 per cent. since my last annual commercial statement. Although business has been active, the record for the amount of capital invested has been discouragingly small.

The sale of American sewing-machines has been immense. The agent of the Singer Company established here sold nearly 1,000 machines during the past year, and the trade in other American sewing-machines has been very brisk.

Tobacco.—Up to within the last two years the fabrication of tobacco in this consular district was in a fairly prosperous condition, but since the celebrated Strasbourg Company was organized under the protection of the Imperial Government it has extended its business throughout Germany in such an energetic and successful way as to seriously injure all the private factories engaged in the industry. The falling off in the demand for the productions of the private establishments has been so great that many concerns have been compelled to reduce their working forces about one-half, and to run their factories on two-thirds time. Thus everywhere in this industry, owing to the Strasburg monopoly, which is simply a forerunner of the proposed government monopoly, there is great and increasing distress.

Silver.—During the past year there were produced 183,708 kilograms of silver, one-fifth of which was taken from foreign ore. The quantity of silver produced from German ore equals about one-fifth of the entire amount produced in the world.

Zinc and lead.—In this industry there has been considerable improvement, which is confirmed by the fact that during last year only $20,611.93 worth of lead and zinc was exported to the United States from this district, while since the 1st of January last, $76,254.45 worth was exported, showing an increase of $55,642.52. Of this sum, $43,611.28 was lead, and $33,243.17 was zinc.

The price of zinc at present is 33 marks per kilogram. This is a fall in the price since the first of last year of seven marks per kilogram. The price of lead per kilogram is 31 marks. This is a rise in the price since the commencement of last year of about 3 marks per kilogram. The total lead production of the world was 430,000 tons, which is an increase of 75,000 tons since 1876. Half of this increase fell to America and the other half to Europe.

I am preparing at present a special report on the manufacture of woolen cloth, which, I hope, will be of interest to the American manufacturers.

JAMES T. DUBOIS,
Consul.

UNITED STATES CONSULATE,
Aux la Chapelle, October 23, 1881.

THE TRADE OF CHEMNITZ, SAXONY.

REPORT BY CONSUL GRIGGS.

During the year ended September 30 last, the goods sent from the Chemnitz consular district to the United States were valued at $9,770,179.67, as against $9,357,906.63 for the previous year. This favorable showing, however, must not be accepted as proof that business here is improving; on the contrary, latterly, it has rapidly declined. Last year the tide of prosperity was at "high mark" in this part of Germany, but about six months ago the reflux set in, and since that time the value of the goods shipped to our country from this consular district has fallen off $889,892.42, as compared with the same period of the previous year. This great decrease fell almost entirely upon cotton hose and coton gloves.

The decline is not due to any dormancy of trade in the United States, but is chargeable, first, to the sudden changing of fashion in our country and the consequent falling off in the demand for certain articles; and, secondly, to the glutting of our market with foreign goods in 1880 and in the spring of 1881. This oversupply—aside from the influence of the change in fashion—was brought about by "consignments," and the action of certain manufacturers here who, thinking to increase their business, began about two years ago to sell their wares through canvassing agents to many American wholesale houses which had not previously purchased abroad the goods they handled. Not a few regular importers not only failed to take due notice of the fact that their former customers were buying elsewhere, but actually ordered a larger quantity of goods than usual. The inevitable result, of course, was that the supply in our country soon exceeded the demand. A number of firms finding that they had bought more than they could possibly sell, countermanded their orders. This, however, only made matters worse, for, as the goods were either finished or in work by the time the order of cancellation came to hand, and as they could not be sold elsewhere, the manufacturer had no alternative but to force them upon our market, in many cases, by the assistance of the auctioneer. Of course the regular trade, not only in our own country, but here as well, suffered severely in consequence. This was especially true in regard to the cotton glove business, which has been in a most chaotic condition in this district for some months past. Many a Saxon manufacturer, on whose hands such goods had been left, rather than run the hazardous gauntlet of the auction room, actually sold them to American houses at from 20 to 40 per cent. below what it cost him to make them.

The following statement, showing the value of the gloves and hosiery exported from this district to our country during the six months ended September 30, explains, more tersely and yet more forcibly than can any number of words, the condition to which the trade in those goods has latterly fallen:

Description.	1880.	1881.
Cotton gloves	$1,019,389 99	$238,845 46
Wool gloves	207,707 52	154,512 17
Cotton hose	1,815,605 09	1,400,534 88
Wool hose	81,486 73	25,763 61

Happily our market is being rapidly relieved of its over-supply of gloves; already our importers are placing new orders for such goods with the manufacturers in this district, though the quantities being purchased are considerably less than those bought last season. The very cautiousness of the importers in ordering, however, is a matter of gratification to the more intelligent of the Saxon exporters, as it assures them that their American business will be healthy, even if it does not at once assume its former proportions.

In regard to the other important items of export, trade has not only been brisker this year than ever before but undoubtedly better than it will be for some time to come. Indeed, the Saxon manufacturers have no thought that, during the coming twelvemonth, their exports will flow toward our country with a volume equal to that of the past year. As to prices, no improvement has latterly taken place; on the contrary, the tendency, generally speaking, has been downward—as to some articles, the reduction, in the past year, being fully 25 per cent.

The following statement shows the value of all the principal items exported from this district to our country during the years ending September 30, 1880, and 1881:

Description.	1880.	1881.
Hosiery, cotton, silk, wool	$3,894,475 82	$4,112,782 98
Gloves, cotton, silk, wool	2,436,294 54	1,597,799 38
Dress trimmings	1,231,913 98	1,332,952 07
Dress goods	844,899 43	1,282,388 88
Musical goods	391,222 96	774,308 44
Embroideries	206,089 22	208,237 46
Kid gloves	139,877 72	156,701 82
Laces	78,539 55	119,466 49
Upholstery goods	44,859 98	76,823 26
Fancy goods	10,366 02	24,915 23

N. K. GRIGGS,
Consul.

UNITED STATES CONSULATE,
Chemnitz, December 12, 1881.

EMIGRATION FROM HAMBURG.

REPORT BY CONSUL BAILEY.

Herewith I transmit to the Department a full statement of the emigration from the port of Hamburg for the year 1880, together with various tables of statistics connected therewith for that and the preceding years. Also the number of emigrants leaving this port for the first ten months of 1881, together with some observations regarding the same.

The following table shows the emigration via Hamburg to transatlantic countries from 1870 to 1880 inclusive.

TABLE I.

	Persons.
In the year 1870	32,556
In the year 1871	42,224

	Persons.
In the year 1872	74,406
In the year 1873	69,176
In the year 1874	43,442
In the year 1875	31,810
In the year 1876	28,733
In the year 1877	22,570
In the year 1878	24,803
In the year 1879	24,864
In the year 1880	68,887

Table II gives the sexes of the emigrants (in percentage of the total number), and shows how large a percentage were of a productive age, *i. e.*, at the ages of from sixteen to thirty-five years, during the years 1878, 1879, and 1880.

These figures very clearly exhibit the great loss of labor and the immense decrease of productive element to the several countries whence the persons emigrated, and consequently the large acquisition in this direction to the United States.

TABLE II.

Ages.	1878.		1879.		1880.	
	Males.	Females.	Males.	Females.	Males.	Females.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
From 16 to 20 years of age	14.56	15.98	15.55	15.60	12.69	14.41
From 21 to 25 years of age	20.11	16.00	22.00	18.40	20.28	17.02
From 26 to 30 years of age	17.34	11.55	18.65	12.23	18.79	12.15
From 31 to 35 years of age	8.88	7.49	8.36	6.95	9.05	6.54
Together	60.89	51.02	64.56	53.18	60.81	50.12
Other ages	39.11	48.98	35.44	46.82	39.19	49.88
Total	100.00	100.00	100.00	100.00	100.00	100.00

Table III shows the nationality and the percentage of the vocation or profession of the emigrants departing via Hamburg, during the year 1880.

TABLE III.

Native countries.	Agriculturists.		Mechanics.		Merchants.		Laborers.		Miscellaneous.		Without profession.		Total.	
	Number of persons.	Per cent.	Number of persons.	Per cent.	Number of persons.	Per cent.	Number of persons.	Per cent.	Number of persons.	Per cent.	Number of persons.	Per cent.	Number of persons.	Per cent.
German Empire	9,063	66.08	10,105	71.50	2,721	36.88	10,634	65.30	1,543	62 49	8,691	58.47	42,787	62.11
Other countries	4,652	33.92	4,027	28.50	4,656	63.12	5,666	34.70	926	37.51	6,173	41.53	26,100	37.89
Together	13,715	100	14,132	100	7,377	100	16,330	100	2,469	100	14,864	100	68,887	100

In the preceding table it is shown that the Germans predominate in all of the vocations, except in that of commercial pursuits, in which they hold the smallest percentage, which deserves great consideration as a national characteristic.

Table IV gives the destination of the emigrants and their native country for the year 1880:

TABLE IV.

Destination.	Native countries.			Together.
	German Empire.	Other parts of Europe.	Other than European countries.	
United States	40,986	22,262	3,259	66,507
British North America	222	76	3	301
Central America and Mexico	19	3	1	23
West Indies	93	13	19	125
Brazil	939	117	171	1,227
Argentine Republic	102	45	23	170
Peru	12	2	3	17
Chili	122	4	33	159
Other South American States	97	11	22	130
Africa	27	5	3	35
Asia	36	8	3	47
Australia	132	10	4	146
Total	42,787	22,556	3,544	68,887

The foregoing table shows that 96.55 per cent. of all the persons who emigrated to transatlantic places or countries in the year 1880 went to the United States of America, and that 95.80 per cent. of the total number were Germans.

This is a steady increase since the year 1878, in which year 72.42 per cent. and in 1879 89.99 per cent. of the emigrants who left for transatlantic countries via Hamburg were bound for the United States.

It is a well-established fact that the tide of emigration varies considerably in the different seasons; that the same is especially strong in the months of April and May, and after that diminishes until October, in which month it reaches a second maximum.

The proportion in the emigration during the year 1880 in the different months is shown by Table V, which gives also the number of Germans, of other Europeans, and of persons from other countries who emigrated via Hamburg in the said year.

TABLE V.

Months.	Total emigration.	Germans.	Other Europeans.	Not Europeans.
1880.				
January	1,144	517	552	75
February	2,113	1,064	867	182
March	4,676	2,894	1,562	220
April	9,300	5,998	3,070	232
May	8,703	5,137	3,366	200
June	6,553	3,559	2,730	264
First half year	32,489	19,169	12,147	1,173
July	5,753	3,230	2,195	328
August	6,611	3,866	2,018	727
September	6,684	4,651	1,325	708
October	8,855	6,384	2,117	354
November	5,491	3,694	1,669	128
December	3,004	1,793	1,085	126
Second half year	36,398	23,618	10,409	2,371
Total	68,887	42,787	22,556	3,544

A large number of the emigrants prefer the indirect to the direct passage, the former being considerably cheaper than the latter.

The following table gives the proportion and per centage of the emigrants forwarded via Hamburg in the years 1878, 1879, and 1880.

TABLE VI.

In the year—	Number of persons forwarded directly.	Per cent.	Number of persons forwarded indirectly.	Per cent.
1878	20,446	82.43	4,357	17.57
1879	17,805	71.61	7,059	28.39
1880	49,100	71.28	19,787	28.72

In the "age of steam" it cannot be wondered at that by far the majority of the emigrants are conveyed in steamships.

In the year 1880, 49,000 persons emigrated directly from Hamburg in 153 steamships, and 100 persons in 29 sailing vessels, whereas in the indirect emigration 721 steamships were engaged which conveyed 19,787 persons.

Of the said vessels employed in conveying the emigrants, the following flags were represented: German Empire with 370 steamships and 23 sailing vessels; Denmark with 3 sailing vessels; Norway with 2 sailing vessels; Holland with 1 steamship and 1 sailing vessel; Great Britain with 503 steamships. Total 874 steamships and 29 sailing vessels.

The 503 British steamships were engaged solely in the indirect conveyance; Germany furnished 218 steamships for the indirect emigration while the latter country had nearly the entire direct conveyance with 152 steamships and 23 sailing vessels.

I cannot here refrain from lamenting that no American vessels are represented in this list, and I may also add that no American steamers sail to or from this port. The absence of the American flag in this harbor, crowded with the sails of almost every nationality, is also to be deplored; and, in connection with like instances in other ports, it should enlist the consideration of the American people by wise and judicious legislation in this much important branch of national industry and trade.

Although the year 1880 shows a large increase of emigration over the preceding years, it will be far surpassed by the current year, in which the exodus has already assumed extraordinary dimensions, as is shown by the following statement:

Emigration via Hamburg from January 1 to October 31, 1881, inclusive.

	No. of persons emigrating.
January, 1881	2,892
February, 1881	5,571
March, 1881	16,172
April, 1881	21,117
May, 1881	16,799
June, 1881	11,082

	No. of persons emigrating.
July, 1881	7,229
August, 1881	8,082
September, 1881	8,194
October, 1881	12,880
Total	110,018

From personal investigation and observation, I am convinced that the general character and intelligence of the German emigrants, and, in a large number of instances, their possession of sufficient means to support themselves and their families, and to engage in legitimate occupations and business pursuits after their arrival in the United States, have been very greatly enlarged and improved during the past year.

JOHN M. BAILEY,
Consul.

UNITED STATES CONSULATE,
Hamburg, November 1, 1881.

THE EXPORTS OF SONNEBERG.

REPORT BY CONSUL WHARTON.

The trade between the Sonneberg district and the United States consists almost exclusively of exports. All over the district, and particularly in the neighborhood of Sonneberg and Coburg, are innumerable factories engaged in making dolls, toys, china, glassware, brass lamps, baskets, guns, hardware, musical instruments, *papier maché* and fancy goods, smokers' articles, paints, seeds, plants, drugs, hosiery, school supplies, &c., the declared value of which shipped to the United States during the year ended September 30, 1881, amounted to $1,810,156.92, against $1,627,710.93 shipped the previous year, which shows an increase of $182,445.99 in the export trade of this district with our country. The evidences of this increased trade we find not only in the figures given, but in the increased number of factories springing up on all sides, there being no less than sixty new houses built in Sonneberg during the year; in the neighboring villages many new buildings have likewise been erected. Hundreds of skilled artisans, in addition to those formerly employed, have likewise been engaged during the year, and several firms employ as many as three or four hundred. Another evidence we find in the increased railroad facilities and prospects of the district, which will be made the subject of a separate report soon. In the opinion of all with whom I have conversed (and my inquiries have been extensive), this trade could be greatly increased by a reduction of the American tariff. As dolls and other toys constitute the principal article of export, they very much desire that the tariff should be reduced on these, or at least that the tariff on toys (50 per cent.) should be reduced to that of dolls (35 per cent.). They say that the present tariff excludes many articles, chiefly cheap wooden toys, altogether. With a general tariff on their "*Spielwaren*" of 35 or 40 per cent. they would be well pleased. Per contra, it cannot be denied by them that the German tariff acts very injuriously on American imports to this district. There is only one house of which I have any knowledge that imports directly into this district, namely, Messrs. Oscar Strasburger & Co., of Coburg. I have sent a special report on their American importa-

tions, which I trust will be of interest to manufacturers. In agricultural implements and all kinds of tools of which America is so far in advance of other countries, a fair trade might be done here but for this adverse tariff, as farmers have to pay a high price for land of middling quality, and are forced in order to cope with foreign producers to use approved machines. At the same time the protection granted by the German Government to the farmer by duties on all kinds of breadstuffs and provisions acts as a further detriment to trade. Even a greater amount of American toys could find a market in Germany if unfortunately the ruling powers in the fatherland had not been pleased to place a duty on them, on some articles so high as almost to exclude importation. Neither the merchants in Sonneberg nor Nuremburg or the china foy manufacturers of this region were consulted, or they would have strongly opposed this tariff, for nearly all of them are for free trade. The new French tariff, a translation of which has been published by the Department of State, has been much discussed by the merchants here as greatly affecting their trade with France. They think the tariff, particularly as it regards dolls and toys, enormous, and the chambers of commerce of Sonneberg, Nuremburg, and Chemnitz have memorialized Chancellor Bismarck to use his influence with the French Government to have it modified. I find that most of the merchants are in favor of re-enacting the tariff treaty made between France, Germany, and Italy about twenty years ago in the time of Louis Napoleon.

I append a table showing the value of declared exports from the district of Sonneberg to the United States during the year ended September 30, 1881.

Statement showing the value of declared exports from the consular district of Sonneberg to the United States of America for the year ended September 30, 1881.

Articles.	Quarter ended December 31, 1880.	Quarter ended March 31, 1881.	Quarter ended June 30, 1881.	Quarter ended September 30, 1881.	Total for the year.
Baskets	.....	$841 77	$990 25	$2,238 41	$4,070 43
Brass lamps	$2,295 91	1,124 50	1,878 28	1,484 40	6,783 09
China goods	49,181 97	42,408 17	125,417 38	176,931 15	393,938 67
Dolls and other toys	100,254 10	40,821 27	208,456 28	249,775 37	599,307 02
Drugs	856 67	.....	982 61	1,511 91	3,351 19
Glassware	10,310 87	10,643 63	17,572 01	31,637 79	70,164 30
Guns	5,068 89	2,403 90	4,880 33	5,397 55	17,750 76
Hardware	2,023 93	3,134 75	476 52	2,605 81	8,241 01
Hosiery (cotton)	91,813 05	114,815 48	92,564 75	130,548 49	429,741 77
Kid gloves	283 50	.....	.....	.....	283 50
Mineral water	5,490 23	1,975 82	2,685 24	.....	10,151 29
Miscellaneous	.....	1,970 53	2,196 07	2,429 30	6,595 90
Musical instruments	15,804 54	10,590 90	15,738 38	25,337 68	67,471 50
Paints	2,605 03	4,333 92	9,777 10	11,254 95	27,971 06
Papier maché and fancy goods	2,871 58	6,377 31	16,528 47	18,716 25	44,493 61
Seeds, plants, &c	36,065 83	15,088 36	2,871 65	11,679 68	65,705 52
Slate pencils	3,786 15	2,971 50	9,917 53	9,090 92	25,766 10
Smokers' articles	2,709 71	4,261 30	7,071 92	11,574 53	25,617 46
Woolen goods	2,752 74	.....	.....	.....	2,752 74
Total in U. S. gold	334,174 70	263,763 20	520,004 83	692,214 19	1,810,156 92
Total preceding year	227,469 44	239,034 65	496,171 59	665,035 25	1,627,710 93
Increase	106,705 26	24,728 55	23,833 24	27,178 94	182,445 99

M. B. WHARTON,
Consul.

UNITED STATES CONSULATE,
Sonneberg, October 4, 1881.

CULTIVATION OF THE SUGAR-BEET IN GERMANY.

REPORT BY COMMERCIAL AGENT WAMER, OF DUSSELDORF.

The manufacture of beet-root sugar in Germany, France, Austria, Holland, Belgium, and Russia has reached a most flourishing condition. The discovery of sugar in the beet root was made by Margraf in 1747,* but it was only in 1796 that Archard established the first manufactory in Cunern, Silesia. Shortly after this other manufactories were set going in France and Germany, which were sustained largely by the support and encouragement bestowed upon them by the first Napoleon during the continental interdiction. The high prices on sugar, which lasted up to the close of the wars of independence, were also in favor of the young industry, but when peace was declared the prices fell, and this, combined with imperfect knowledge of manufacture and mode of cultivation, caused a decline, so that finally the factories in Germany had to suspend operations. This stagnation, however, was of short duration, and on recommencing, the process of manufacture was greatly improved by the introduction of bone-black. The revival of prosperity in the trade was pronounced, and the imports of cane sugar fell off, while there was a corresponding increase in the export of beet sugar.

During the years 1878–'79 there were 324 crude sugar manufactories and 63 refineries in operation in Germany (1879–'80, 328 crude sugar manufactories). In 1878–'79 over 92,500,000 centners (100 centners=110 pounds English) of beets were consumed by the manufactures, which yielded about 8,500,000 centners of crude sugar.†

This rapid improvement was accomplished largely by the co-operation of the learned societies in Germany and Austria.

These societies protected and advanced the industry by means of published journals containing much necessary theoretical and practical knowledge. The scientific researches of the German society were for a long time carried on by Professor Scheibler, at Berlin.

The red beet, *Beta vulgaris* or *Beta cicla*, comprises both the cattle turnip and the sugar-beet proper, and a numerous variety of the same. There are many varieties under special names cultivated from the sugar-beet, and the increase of sugar from the beet has succeeded by careful selection in breeding and cultivation.

While the amount of sugar in the juice of the cattle-beet reaches only from 5 to 9 per cent., it is found to run as high as 10 to 13 per cent. in that of the sugar-beet, and sometimes as much as 16 to 17 per cent.

The sugar-beet is a *biennial* plant, that is, it needs two years before it ripens; in the first year, it produces leaves and the pulpous, juicy, and richly-growing roots, in which latter the sugar is found. The beets are gathered in the fall, and either the juice can be expressed for sugar-making, or the plants themselves stored in pits for replanting the following spring for seed.

In addition to sugar, the beets contain the salts of alkalies, and both nitrogen and protein, and nitrogenous acids and bases, termed non-saccharine producing elements, the fermentation of which, in the manufacture of sugar, should be carefully guarded against.

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*Histoire de l'Academie des Sciences et belles lettres de Berlin. 1747, p. 79.

† See Stammer's Jahresbericht, 20 vol., f. 1880, pp. 377–379.

It is useful to mention here a proof in general use of the purity of sugar in beets, viz, the *purity-quotient.* When the juice is evaporated there remain the dried substances, including sugar, that had existed originally in the beet. It is clear that the more sugar there is in this mass, the greater must be the value of the beet. Therefore, it is necessary to decide the percentage of dried matter to the beet, and this is called the *quotient of purity.* The quotient must reach to at least 75 per cent. (very often it is as high as 82 to 85 per cent.), for it is only at this point that beet juice can be worked satisfactorily.

The *percentage of dried substances* (sugar + non-saccharine matter) is found mostly by taking the *specific gravity* of the juice, and the *percentage* in sugar by *polarization,* calculated by equations.

$$\textit{purity-quotient} = \frac{\text{sugar} \times 100}{\text{sugar} + \text{non-saccharine matter.}}$$

In order to obtain good results in beet-sugar industry it is necessary—

To procure beets rich in sugar.

To carry on the manufacture as rationally as possible.

To raise beets rich in sugar there must be the right kind of soil and location, the selection of good seed, and proper culture and manure.

A soil is fitted for the culture of sugar-beet when it is neither too dry nor too moist; if it be in the latter state it must be drained. A loose subsoil is good, and all the more so if it is of a marly or sandy nature, not too loose or too compact. A sandy humus loam, called a mild soil, is the best adaptable.

When the soil is poor in lime, the deficiency may be supplied to it in the form of marl. A deep subsoil is necessary, because the beet roots in growing penetrate far into the soil, and the situation and climate must not be severe, although on the other hand it is very possible to raise beets in Sweden.

The best region in Germany seems to be in the districts of Magdeburg and Braunschweig; also in the river valleys.

Good beet seed and a variety are requisite. An indication of "*rich in sugar*" is when the plants possess a *regular form*, and have not too many adhering roots.

CULTIVATION.

Good cultivation of the soil is very essential, and deep plowing (11 to 12 inches) must be resorted to; this latter has been successfully carried on by means of the *steam plow.* Concerning steam plowing in Germany, the following extract from an agricultural paper may be of interest:

> It is exactly twenty years ago since the first steam plow was introduced into Germany, and to-day there are to be found in Germany and Austria 200 steam plows of different construction and mostly of English manufacture.

When the plowing has been accomplished the ground is well harrowed and rolled. An important matter to be considered here is the right distance at which the seed should be planted, as the *size* of the beet and its richness in sugar depends largely upon this. The seeds are then planted in rows at fixed distances.

In certain large beet-growing localities in Germany the following may be given as the experience of many planters:

The further apart the plants are the larger do the roots grow, but *poorer in sugar*, and the nearer they are the *richer in sugar.*

In order that roots may develop at equal sizes, they should be

planted nearer together on good manured soils than on those of a poorer quality.

When beets are well grown they should each average from 1¼ to 2½ pounds in weight; there is always a good yield per acre of these sizes.

Fühling gives the following distances as the best: For a good soil that is richly manured, 15 inches width between the rows, and a space of 10 inches between the plants; for a soil only tolerably rich, 15 inches width between the rows and 9¾ inches space between the plants; and for a soil still poorer, 18 inches width between the rows and 10 inches space between the plants. Tollins*, the very able professor at the Gottingen Agricultural College, believes the above given distances could be, with advantage, reduced a little. Hanamann† gives, as his experience from a series of experiments on rich clay soils, 13.65 inches as a good width between the rows and 9¾ inches space between the plants; for a poor soil, 15.60 inches width between the rows and 9¾ inches space between the plants.

It is true that when the beets are small and the yield is not large, there will not be an increase in sugar, and, as a proof of this, I give below a number of experiments instituted by Hanamann:

Number of beets per ten quadrat, soil $\frac{1}{1000}$ hectares. One hectare = 2½ acres.	Beets.	Sugar.	Non-saccharine matter.	Sugar.	Non-saccharine matter.
	*Grams.**	*Grams.*	*Grams.*	*Per cent.*	*Per cent.*
95	16,287	2,506	354	16.20	2.29
127	17,195	2,615	486	16.01	2.98
140	16,030	2,607	285	17.12	1.87
171	15,635	2,654	218	17.87	1.47

*1 gram = 15.43 grains.

After the beets have completed their growth they are drawn out of the soil by means of a wire-arranged implement, that is, those which can be easily removed, leaving behind the stronger imbedded ones. Later, the vacant space left by the removal of the first beets is grubbed up, either by steam or the hands, which loosens the soil, and destroys the weeds, &c. Finally, the remaining beets are entirely removed in the fall, and this is done mostly by steam. They may be worked immediately for their sugar, or they are put away in proper banks to protect them from the cold.

The transportation of beets from the field to the factories has been done latterly here on a portable railroad, Decanville system.

MANURES.

The experience obtained by numerous experiments indicates that the beet-root requires a good and richly-manured soil, but it cannot suffer *fresh stable manure* without giving a poor yield in sugar. Where the plants are raised from those of the second year its application would be favorable to the formation of sugar. Further, the beet-root must have plenty of *phosphoric acid*, *nitrogen*, and perhaps *potash*. As re-

* Petermann (Biedermann's Centralblatt für Agriculturchemie, 10 V., 1876, p. 288), recommends in Belgium the width between the rows to be 15.6 inches and 9¾ inches for the space between the plants.

† Organ des Central-Verein für Rübenzucker. Industrie in der Oesterr., Ungar, 1879, p. 373.

gards the benefit derived from the use of phosphoric acid all authorities agree, and large quantities of it are being yearly used by beet-root producers, mostly as *superphosphates*, applied at the rate of from 120 to 160 pounds ($P^2 O^5$) per hectare (2½ acres). A small quantity of *nitrogen* is necessary to insure good growth, but if too much be given it would hinder the formation of sugar. The stems and leaves would thereby be stimulated to grow too rapidly, and consequently there would be irregularity in the sizes of the beets, impurities in the juice, and an increase of non-saccharine compounds. The use of nitrogen therefore has been restricted to *chilisaltpeter*, although in this form it is partly rejected. Latterly Professor Märcker has ignored the prejudice against the use of chilisaltpeter, and asserts that it is not deleterious when its application to the soil is accompanied by phosphoric acid. According to Märcker, 400 kilos (= 880 pounds) or more per hectare of chilisaltpeter can be applied without injury. M. says chilisaltpeter prevents the ripening of beets, but on the other hand this is accelerated by using phosphoric acid. Professor Tollins recommends the following mixtures per hectare (= 2½ acres) as being good beet-root manures:

(*a*) 300 kilos (100 kilos = 220 pounds) soluble Peru guano, 200 kilos good superphosphate (containing 20 per cent. $P^2 O^5$).

(*b*) 200 kilos soluble Peru guano, 200 kilos good superphosphate, 100 kilos chilisaltpeter.

(*c*) 300 to 400 kilos good superphosphate, 200 kilos chilisaltpeter, to which can be added 80 kilos sulphate of potash or 100 kilos concentrated potash salt. The phosphoric acid and nitrogen may be added in the above proportion, as nitrogen superphosphate, dried blood, fish guano, &c.

The profit on beets per acre varies very considerably. Presuming that the soil, manures, and the season are equally good, the profit would be higher if the yield were poor, and less if it were greater. Beets that average from 20,000 to 30,000 kilos per hectare should contain 12 to 14 per cent. of sugar, and those of 30,000 to 40,000 kilos per hectare 10 to 12 per cent. of sugar.

In the years 1878–'79* the beets gathered in the following districts of Germany averaged per hectare:

In Prussia, 582 centners (20 centners = 1 ton).
In Bavaria, 631 centners.
In Würtemberg, 462 centners.
In Baden, 631 centners.
In Mecklenburg, 462 centners.

In the same years they averaged 9.21 per cent. crude sugar, 2.89 per cent. molasses, and, at which rates, it required 10.86 kilos of beets to produce 1 kilo crude sugar. In previous years there was sometimes more sugar won, but mostly less than latterly, as will be seen below from the number of kilos it required to produce one kilo of crude sugar: 1869–'70, 12 kilos; 1872–'73, 12.1 kilos; 1874–'75, 10.7 kilos; 1876–'77, 12.27 kilos.

WM. D. WAMER,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Dusseldorf, October 10, 1881.

* Stammer's Jahresbericht, 20. B. f. 1880, p. 385.

TRADE AND INDUSTRIES OF BRESLAU.

REPORT BY CONSUL DITHMAR.

In the first half of the present calendar year there was a marked decrease in the amount and value of exports from this consular district to the United States. The falling off in the declared values amounted to $119,379.15, as compared with the same period of last year. Since the 1st of July, however, a brisker business is doing. Linen and half-linen fabrics and German kid gloves still retain their prominent place among the goods shipped hence to the United States, but the exports of cotton goods, lisle-thread gloves, fine glassware, and chemical preparations have fallen off considerably. On the other hand, the number of invoices of porcelain ware, glove leather and skins, and sheet zinc certified at this consulate since the date of my last annual report has increased, while fur linings, vegetable-ivory buttons, and druggists' boxes and jars, have been added to the list of articles exported.

The manufacturers of linen and half-linen fabrics still suffer from the general tendency to "beat down" prices, and, as a natural result, even the better grades of these goods have depreciated in quality in order to conform to the prices. Pure linen creas and bleached linens still find slow but steady sales, but feel the competition of Alsatian cotton goods, such as dowlas, shirtings, and *blanc menage*, which are gradually displacing the costlier fabrics. For half-linen goods the demand has been fair, and has kept the factories pretty active, but at prices which are reported as ruinous. One manufacturer in this district has already gone into bankruptcy, and the failure of others is predicted in the latest trade report. The reduction or abolition of the duty on linen and cotton yarns is demanded by the "Silesian Linen and Cotton Manufacturers' League," in order to enable them to compete with the cheaper labor and untaxed material of the Austrian factories. The present duty on linen yarns is about 5 per cent. on Nos. 20 and 50, 6 per cent. on Nos. 30 and 40, and 7 per cent. on No. 22; while the profits of the large exporting manufacturers do not exceed 2 to 3 per cent.

The manufacture of cotton goods in this district remains in a depressed condition, the production being largely in excess of the demand, and the superior products of the looms of Alsace and Westphalia tending to keep the prices of the Silesian fabrics at a point which is scarcely remunerative. Not a single shipment of chenille shawls has been made to the United States this year, while last year large amounts were exported.

In woolen goods the depression likewise continues. Of the flannel manufactured by the largest establishment near this city last year, nearly one-third remained on hand at the close of the year. The imitation Smyrna carpets and rugs manufactured at Schmiedeberg, in this district, have, however, unexpectedly found an eager market. The company report to the chamber of commerce that they have been obliged to put up twelve new double looms in order to fill the orders, and that "there is a good demand from North America"; but no invoices have been presented for verification at this consulate.

The large manufactory of fine glassware in this district, the Josephinenhütte, had in the first half of last year so many orders from the United States for its colored and otherwise decorated wares that it was compelled to employ an extra number of skilled workmen, and this notwithstanding a great falling off in the number of orders from England, which had hitherto been its best market. This activity, which extended into the third quarter of the year, nearly ceased in the fourth, and the

sales to the United States during the present year have been very limited, the shipments of glass consisting in greater part of light globes from other factories.

The finer varieties of porcelain wares manufactured here have, on the contrary, been in greater demand in the United States this year. Australia and India also imported large quantities, while from Russia, owing to the recently imposed import duty, the orders came more sparingly than formerly. The sharp competition of the Austrian and Bavarian potteries in the domestic markets compel the Selesian porcelain makers to offer easy terms to customers from abroad, the home trade being mainly confined to this province and the immediate neighborhood.

In sheet zinc there was likewise an active export to the United States from this district during the past year, which has continued with some few interruptions up to the present time. The exports to Russia having decreased and the home consumption fallen off greatly in consequence of the active competition of Rhenish and Belgian producers, the mine owners and manufacturers here were obliged to make concessions to American and other foreign buyers. The production for the year was limited, the company exporting to the United States having produced only 338,715 cwt.

During the year large quantities of maize was brought into this province from Hungary and Roumania, for distilling purposes and also for cattle food. The Roumanian maize is preferred to the Hungarian and brings a higher price. The average price last year was $35.50 per ton for the medium grades. The mixed American maize brought here was found to be superior to the Roumanian article both for feeding purposes and for distilling, its percentage of starch being greater, but its relatively much higher price—caused by the addition of the freight from the sea-port hither—precluded the sale of any great amount here.

According to the July number of the "Statistics of the German Empire," the amounts of the grain crops in the year 1880, in Germany, were as follows (the figures representing tons of 2,240 pounds):

Wheat and spelt	284,084.1
Rye	496,252.5
Barley	214,561.7
Oats	422,812.8
Maize	1,068.3
Total	1,428,779.4

While the imports and exports of the same articles during the year beginning August 1, 1880, and ending July 31, 1881, were as follows:

[Tons of 2,240 pounds.]

Description.	Imports.	Exports.	Excess of imports over exports.
Wheat	455,377.5	46,594.5	408,783.0
Rye	714,833.5	8,310.2	706,523.3
Barley	309,093.4	96,748.6	212,344.8
Oats	207,671.1	37,752.0	169,919.1
Maize	479,391.4	612.4	478,779.0
Total	2,166,366.9	190,017.7	1,976,349.2

The official report concerning the coal and metal industries of Upper Silesia for the year 1880 gives some interesting statistics. It appears that women and children are still employed, in large numbers, in the mines and smelting works of that district. The 88 coal mines of the district produced in the year 10,010,721 tons of coal, and gave employment to 32,517 persons, of whom 2,580 were of the female sex. The mines

likewise found work for 962 horses, and 462 steam-engines of 36,356 horse-power. The 32,517 laborers were paid, in all, $4,075,761 wages, or $125 per head. The number of casualties during the year was 805, 77 proving fatal.

Of the 38 iron mines in the district, 23 were worked the entire year; the remainder only a part of the time. The persons employed in these mines numbered 2,623, of whom 1,040 were females, 126 of these being girls under 16 years of age. The aggregate wages amounted to $189,296, less than $73 per head. The production of ores was 9,650,820 cwt.

The production of pig iron in the district during the year was 939,000 cwt. in excess of the previous year, the increase being due to the demand for iron in the United States. The number of laborers employed in the smelting works was 3,222, of whom 790 were females, 13 being girls under 16 years of age.

The 19 iron foundries in the same district were in active operation during the year, employing 968 workmen, whose wages aggregated $219,330—less than $260 per head per annum, or an average of $5 per week. These foundries produced 409,420 cwt. of cast-iron wares, using 400,000 cwt. of domestic iron, 25,000 cwt. of English, and 5,500 of Scotch, Hungarian, and Syrian.

The 18 rolling mills in the district were kept running uninterruptedly, employing more than 10,000 workmen, 230 steam-engines of 10,037 horse-power, and 11 water powers; 6,500,000 cwt. of iron were rolled and 13,000,000 cwt. of coal consumed. The entire value of the manufactures is given at $7,378,000, while the wages paid aggregated nearly $1,428,000.

The steel works employed 567 workmen, whose wages amounted to $115,543. The works were mainly employed in the production of steel rails, of which 484,000 cwt. were turned out.

Twenty-seven establishments are engaged in the production of zinc, and these employ 3,768 male and 982 female laborers, whose aggregate wages amount to less than $714,000. There is one manufactory of zinc-white and four of sheet-zinc, the latter employing 346 male and 12 female laborers.

The lead and silver produced in the district give employment to 390 workmen, whose aggregate wages are $65,767 per annum. The value of the lead produced last year was $968,863, and that of the silver $244,073.

The following table gives the number of persons employed in the mining, smelting, and kindred industries in Upper Silesia, their sex, age, and their aggregate wages:

Description.	Sixteen years and upward.		Under 16 years.		Wages.
	Males.	Females.	Males.	Females.	
Coal mines	29,865	2,567	78	13	$4,065,671
Zinc mines	7,085	2,304	306	231	930,232
Iron mines	1,457	894	126	146	189,296
Smelting works	2,444	782	18	13	392,806
Iron foundries	963	.....	.....	.....	219,330
Rolling mills	10,251	267	269	39	7,378,000
Zinc works	3,705	929	81	53	714,000
Zinc-white and sheet-zinc factories	362	18	1	.....	49,780
Lead and silver works	383	7	.....	.....	65,767

HENRY DITHMAR,
Consul.

UNITED STATES CONSULATE,
Breslau, September 24, 1881.

RAILWAY SYSTEM AND PROSPECTS IN THURINGIA.

REPORT BY CONSUL WHARTON, OF SONNEBERG.

Considerable interest is manifested at present in this locality on the subject of railroads; and as it is one that deeply affects trade, both local and export, I have concluded to write a short article on the railway system and prospects of the Thuringian states (or duchies) which compose the district of the Sonneberg consulate. By looking at the map it will be seen that this district, composed of the duchies of Weimar-Eisenach, Saxe-Meiningen, Saxe-Altenburg, Saxe-Coburg-Gotha, Sevartzburg-Sondershausen, Swartsburg-Rudolstat, and Reuss Altere-Linie, and Jungere-Linie, lies between two great trunk lines of railways, one composed of the *Bavarian Government Railway and the Saxon Government Railway*, being part of the great route from Italy (Verona, Venice, Milan, &c., through Tyrol (passing Innsbruck), and touching Munich, Nuremburg, Lichtenfels, Hof, to Leipsic, Berlin, Hamburg, Denmark, Sweden, Norway, and (ultimately) St. Petersburg; the other the *Thuringian Railway*, connecting Berlin and the whole east and northeast, via Halle, Weimar, Erfurt, Gotha, Eisenach, with the central and western part of Germany, Frankfort-on-the-Main, Mayence, Strassburg, and France (it being one of the quickest routes to Paris). Sonneberg, the seat of the consulate, is at the terminus of a branch of the Werra Railroad, twelve miles from Coburg, which lies on the main stem, beginning at Lichtenfels and running, via Coburg, Meiningen, and Hilburghausen, to Eisenach, where it connects with the Thuringian Railway, the second trunk line described above. This Werra Railway offers good direct communication with the south and southwestern, north and northwestern parts of Germany, but as far as the important northeastern portion is concerned, with important cities like Leipsic, Dresden, and especially Berlin, the communication is very imperfect and inconvenient. For example, the direct distance between Sonneberg and Leipsic (perhaps the most important commercial city in the empire, the center of the book trade, and the seat of the great annual fairs) is not so great as between Eisenach and Leipsic, and yet in order to reach Leipsic the people of this section are compelled to go by Eisenach. The distance by direct line would be four hours, but according to the present arrangement it takes ten hours. It has therefore been a constant desire in this part of Thuringia to have a direct line with the north, and especially the northeast, the more so since the railway from Leipsic via Zeit, Gera, and Saalfeld has been built to Eichhicht, the northeast point of the Thuringian chain, and since the third almost parallel line from Grossheim to Saalfeld has been built, leaving merely a short distance of twenty-seven miles to complete the line from Eichhicht to Sonneberg. This connection would no doubt long ago have been made (for six years ago the contract to do it was nearly signed by the Thuringian Railroad Company), but for the fact that the cost of the line, running through great mountains and requiring much tunneling, was enormously high; and, secondly, because the track of the road was almost exclusively through the duchy of Meiningen, which would have made that small duchy responsible in case of the failure of the road, and a loss thus be entailed which the feeble treasury of the duchy could not bear without

ruin. In opposition to this line there has been proposed from the adjoining district, belonging mostly to the kingdom of Bavaria, an almost parallel line from Eichhicht to Stockheim, terminus of a branch line from Hochstadt, on the Bavarian main line from Lichtenfels to Hof, and according to the latest intelligence the Bavarian Government has given out the contract to begin the line. In this case Sonneberg, with Coburg, will have to make every effort to get a connection at a point about six miles from Sonneberg, and the incipient steps have already been taken by the Chamber of Commerce of Sonneberg. This would, of course, by no means be as great an advantage to the district as the above more direct line from Sonneberg to Eichhicht, still it would to some extent facilitate our connection with the north and northeast, and enable us to avoid the circuitous routes by way of either Lichtenfels or Eisenach. At the same time the hope of having the direct line is by no means abandoned. The main prospect lies in the policy of the Prussian Government, which is to get possession of all the private main lines of travel. This government has already purchased several, and is now on the point of buying (so it is reported) the Thuringian Railway. Over others it exercises a moral control, while the property is in the possession of private parties. If the government purchase the Thuringian road, it will doubtless then buy the Werra road, and in that event it is thought the direct line from Sonneberg to Eichhicht will be built by that government, as it will give an unbroken connection of their own lines in transporting troops, &c., from that kingdom to the southern part of the empire.

In the mean time there has arisen another plan, which is to build a narrow-gauge road from Sonneberg to Lausha, a village where our glass toys are made. This line would have an extent of twelve miles in the direction the direct line to Eichhicht would run, from there turning into the Steinach Valley to Steinach, where our slate-pencil quarries lie; and from thence to Lausha. The Meiningen government, seeing the great advantage of having this line in the exploration and utilizing of their forests, agreed to share three-fourths of the expense required for this railway; and it is very likely the remaining one-fourth will be borne by the merchants of Sonneberg and the adjoining villages. There is therefore every reason to look for the early completion of this railway from Sonneberg to Lausha. With the addition of these lines new factories will spring up, prices from increased facilities in transportation will be diminished, and export trade with the United States increased. And here, let me remark, a field is opened for American manufacturers of railway rolling stock and carriages. Considerable prejudice exists with many in regard to the compartment system of constructing railway coaches, and I venture the prediction that there will soon be a revolution on this subject all over Europe. These compartments are liable to many objections; and recently the murderous attack on a German consul in Mt. Cenis tunnel in one of these compartments and the murder of a prominent citizen of England on the Brighton Railway in another, and other like incidents, have increased the prejudice, till the safe, elegant, and luxurious forms of our American coaches would be hailed here with delight. Hence I say (and it is not foreign to my subject) this newly-awakened interest in railroads may redound to the good of American as well as German manufacturers.

MORTON B. WHARTON,
Consul.

UNITED STATES CONSULATE,
Sonneberg, November 19, 1881.

TRADE AND INDUSTRIES OF WÜRTEMBERG.

REPORT BY CONSUL CATLIN.

Trade between Würtemberg and the United States has remained practically unchanged during the last fiscal year; the total amount of exports declared before this consulate amounting to $817,448.22, as compared with $834,441.04 for the previous year.

The articles of export during the past year were:

Articles.	Value in American gold.
Corsets	$358, 803 29
Quinine and other drugs	115, 052 75
Colors	58, 383 16
Leather	26, 765 04
Jewelry	15, 655 53
Chicory	9, 168 55
Cotton goods	8, 168 75
Musical instruments	7, 920 29
Stone ware	7, 696 91
Books and illustrated periodicals	6, 920 80
Lithographic stones	6, 557 69
Woolen goods	5, 713 52
Linen goods	4, 179 54
Miscellaneous	186, 461 40
Total	817, 448 22

THE CORSET TRADE.

The corset trade of Würtemberg, it will be observed, contributed a half of the amount of goods exported. In a special report to the Department on this subject in February last (see vol. March, 1880, Consular Reports No. 9, pages 430–433), I gave an account of the origin and growth of this great industry, together with the condition of the trade at that time. Since the date of that report no changes worthy of mention have transpired.

QUININE.

The quinine trade of Würtemberg has begun to assume a noteworthy importance. The annual report of the Stuttgart Chamber of Commerce just published adverts at considerable length to this subject. It says:

Quinine had already some years ago assumed a special importance as an article of trade, in consequence of its maintaining a prominent position among drugs. But of late years it has attained a still greater prominence through the great fluctuation in its prices, rendering it one of the most important articles in commerce. Great fortunes have been made and lost in it. In regard to the raw material of the quinine, the cinchona, statistics show the import increased very considerably; during 1880 the total import amounted to 77,300 cases, against 20,700 in 1876. In December last the stock in London was about 31,000 cases, against 3,400 in 1876. This present stock of cinchona in London represents about 21,000 kilograms of quinine against 7,800 kilograms in 1879. France, too, has imported considerably more, and the stock of cinchona there would give about 6,000 kilograms of quinine.

The Indian export, from government and private plantations, has also increased, but not in such a remarkable degree as the growth of the production of Ceylon bark, which amounted in 1874–'75 only to 18,731 English pounds, but which increased during the last year to over 1,000,000 pounds. The export of bark from Colombia, the chief country of production, is constantly increasing, as the exporters there make such large profits; the same may be said of Ecuador. If we consider, at the same

time, the exertions made by the Dutch Government, as well as by the Darjecting Cinchona Association, to increase the production of cinchona in the Dutch colonies, we must conclude that for some time to come the manufacturers of quinine will not be in want for raw material. The product of quinine in Europe during 1880 was nearly the same as the year before. The total stock of quinine and raw material in the hands of the manufacturers may be about 10,000 kilograms more than in normal times. The Russian Government consumes only half of what it did during the war, and the English Government produces in its own factories in India only sufficient to cover the demand for India; on this account there are about 15,000 to 20,000 pounds of quinine less in the English market. The progress made in organic chemistry has long since brought quinine under consideration as a subject of extended experiments, and we shall, at no distant day, have to consider the growing possibility of producing quinine by artificial means.

The production of the most important alkaloids in chemical laboratories is already to be looked for now, and there is no knowing what revolution it may create in this branch of commerce. In any case there remains the fact that the bases, chinolin and lepidin, which appear as products of decomposition of the most important alkaloids and the quinine itself, and which are, without doubt, elements of it, can be produced by the hundred-weight with unheard-of facility, out of such very cheap materials as sulphuric acid, ammonia, glycerine, nitro-benzole, &c.

DRUGS.

The general trade in drugs shows for the year 1880–'81, on the whole, a slight improvement. During the first half of the year a temporary glut in the market and a decrease in orders from the United States caused a fall in prices, but since then the demand has again increased and the market has rallied.

JEWELRY.

Perhaps in no branch of trade in this consular district has American competition made itself more severely felt than in that of the manufacture of jewelry. The neighboring city of Pforzheim, long known as one of the world's centers for this species of industry, contains about 200 jewelry factories, employing 8,000 workmen, and doing an aggregate business varying from $10,000,000 to $12,000,000 per annum.

Not only have shipments of these wares to the United States fallen off to one-fifth of what they formerly were, but the tables have been turned and American jewelry from Attleboro', Mass, Providence, R. I., and Newark, N. J., now forms a large part of the stock shipped by the Pforzheim manufacturers to Spain, Russia, and other continental countries.

LEATHER.

Würtemberg's leather interests are the largest of any in Germany, Saxony's excepted. The annual product is valued at 37,000,000 marks, and the goods are exported to nearly every quarter of Europe. Each manufacturer confines himself to a special line of goods. At Backnang, which is known as the principal center for tanning the hides of wild animals, are 140 tanneries. The dressing of kid is mostly done at Esslingen and Cannstadt involving an annual consumption of 100,000 Italian lamb-skins. At Stuttgart, Esslingen, Feuerbach, and Schorndorf there is manufactured a fine quality of Russia leather, which threatens, it is claimed, to drive the English, hitherto extensively sold, from the German market. Of the oak bark used in tanning, Würtemberg supplies only 42 per cent., the balance being imported chiefly from Hungary and France, at an annual cost of 3,000,000 marks.

The leather trade during 1880 was about the same as that of the year 1878. A poor harvest and a consequent scarcity of funds helped to embarrass business.

The prices obtained for the finished material did not compensate for the increased prices in raw hides, caused by speculation as well as by Russian and North American competition, and the business for the year was therefore rendered comparatively unprofitable. Raw hides during the early part of the year were 20 per cent. higher than during the corresponding period in 1879.

THE BOOK TRADE.

Since 1840, Stuttgart has been the book-trade center of South Germany, its publications being notably illustrated periodicals, *editions de lure*, children's books, and scientific and musical works. Shipments of books have increased from 481,600 kilograms in 1861 to nearly 3,000,000 kilograms in 1880, and now the total annual book trade of Würtemberg is valued at upwards of 15,000,000 marks.

The following table gives a comparative statement of the annual shipments of books from Stuttgart to other points since the year 1875:

Export to—	1875.	1876.	1877.	1878.	1879.	1880.
	Kilograms.	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Leipsic	1,677,530	1,749,320	2,030,627	2,012,490	2,225,353	2,267,207
Vienna	303,390	283,580	340,770	369,760	406,684	358,311
Switzerland	119,825	111,625	120,284	130,810	114,653	159,440
Alsace-Lorraine	29,510	20,182	29,315	39,240	33,363	35,438
Total in kilograms	2,130,255	2,173,707	2,520,996	2,552,300	2,780,053	2,829,396

Xylography, stereotyping, and lithography are also brought to a high degree of perfection. There are in Stuttgart alone 16 xylographic and 10 stereotyping establishments, the former employing 100 and the latter 80 workmen.

MUSICAL INSTRUMENTS.

The manufacture and sale of musical instruments in Würtemberg during the past year have been somewhat improved, though some reduction in prices was necessitated by the competition of other points of manufacture. The world-renowned organ factory at Ludwigsberg, which has instruments in the cathedral at Ulm, Music Hall at Boston, St. Peter's church at St. Petersburg, the Votiv church at Vienna, the Johnannes church at Christiania, and the cathedrals at Agram, Hungary, and Buenos Ayres, South America, finds it now quite difficult to furnish good work for the prices offered. It is mentioned as a matter of just pride, that of fifty prizes awarded for musical instruments of all kinds at the Sydney exposition, fifteen went to Germany, and of these fifteen seven were awarded to Stuttgart manufacturers. In all Würtemberg there are annually produced about 5,500 pianos and harmoniums, valued at 2,500,000 marks.

CHICORY.

The exportation of chicory to Italy and Austria has been declining of late years, in consequence of the high rate of duty. To the United States about 200,000 pounds are exported annually in packages, the consumers being principally the German emigrants.

THE WÜRTEMBERG ART AND INDUSTRIAL EXPOSITION.

In a special dispatch, No. 44, dated May 19, 1881, I had the honor to inform the Department that on that day the Art and Industrial Exposition of and for the Kingdom of Würtemberg had been opened to the public. From that time to the present the spacious exposition building and the adjacent grounds have been daily thronged with visitors, who have come not only from all parts of the kingdom, but many of them from foreign countries, to witness the very creditable display made by the inventors, manufacturers, and producers of Würtemberg. A praiseworthy interest in the exposition has been shown by all classes of the people. Not only have their majesties the King and Queen and the members of the royal family been frequent visitors, but the people themselves have flocked thither in throngs, from country and town alike, special trains having been run daily for the purpose of bringing those desirous of attending. Manufacturers everywhere have closed their establishments for a day, engaged special trains and brought in their employés, with their wives and children, to give them a holiday and at the same time useful instruction. The fact that the exposition has not yet closed renders it impossible, as yet, to give any satisfactory statistics in regard to it; but I hope in a later special report to give full information in relation thereto. Suffice it for the present to say that in an artistic, industrial, and financial sense the Würtemberg Exposition of 1881 has proved completely successful.

THE GRAIN, FRUIT, AND VEGETABLE CROPS.

The grain product of the kingdom in 1880 was larger than for many years past, and exceeded that of 1879 by nearly one million centners, viz:

	1879.		1880.	
Wheat:				
Winter	349,000		427,000	
Summer	240,000		299,000	
		589,000		726,000
Dinkel:				
Winter	4,072,000		4,500,000	
Summer	13,000		12,000	
		4,085,000		4,512,000
Rye:				
Winter	737,000		700,000	
Summer	116,000		118,000	
		853,000		818,000
Barley:				
Winter	51,000		58,000	
Summer	2,350,000		2,600,000	
		2,401,000		2,658,000
Oats		3,222,000		3,400,000
Total		11,150,000		12,114,000

In addition to the above there were produced during the year 1880, 87,000 centners of corn, 58,000 of pease, and 300 of buckwheat. The potato crop yielded 10,400,000 centners, of which about one-tenth was affected by rot. The hay crop amounted to only 25,000,000 centners, a falling off in consequence of wet weather.

The fruit product was badly affected by a heavy frost, which came on in May, killing no less than a million and a-half of trees. One in every ten apple trees in the kingdom fell a victim to the destroyer.

THE WINE CROP.

Disaster seems to have overtaken the wine-growers of Würtemberg, four successive bad years having now come, with prospects of a fifth, to discourage their efforts and turn their attention and hopes to emigration as the only means of ever bettering their condition.

The following table, giving the wine product of the Stuttgart district alone, serves as an indication to the product of the entire kingdom, viz:

Year.	Product.	Valuation.
	Hectoliters.	*Marks.*
1868	53, 550	1, 530, 000
1874	22, 149	1, 268, 904
1875	31, 977	1, 044, 729
1876	9, 864	537, 441
1877	10, 446	360, 071
1878	9, 123	395, 299
1879	3, 250	95, 355
1880	933	52, 621

THE HOP CROP.

Würtemberg produced during 1880 7,600,000 pounds of hops, valued at 4,700,000 marks, as compared with a product of 4,265,400 pounds in 1879.

The average annual hop product of all Europe and America, according to Professor Thussing, of Vienna, amounts to 130,000,000 pounds, the annual consumption to 124,500,000 pounds. In 1880 the price of hops in Würtemberg declined suddenly from 150 marks to 25 marks the centner, owing to a cautious desire on the part of producers to dispose of their crop as speedily as possible, for during the three previous years a too long hoarding of the crops for speculative purposes had occasioned great losses. The inferior quality of the English crop for the year gave rise to a demand in England for German hops, American competition being rendered impossible by the above-mentioned low prices temporarily prevailing in the German market. This caused a reaction, and prices again went up nearly one hundred per cent. Business in 1880 was much more active than in 1879, and inasmuch as only about one-third of a good average hop crop in Germany is consumed in Germany itself, and moreover as failures of the crop are rare, exportation is necessarily brisk. The product would be even much greater than it is were not the producers in most cases proprietors with small farms, capable of growing not over two or three centners apiece. These lack facilities for drying and preparing the hops for market, giving the hops when offered for sale an unmarketable color and appearance, and thereby lessening the producer's rightful profits. It has been aptly suggested that by combining together in communities or villages the producers might remedy this evil by the erection of a communal drying establishment and the employment of an experienced drier.

BEER.

There are about 8,000 breweries in Würtemberg, producing annually over 3,000,000 hectoliters, or about 75,000,000 gallons, of which only one-thirtieth is exported.

All Germany produces about 900,000,000 gallons per annum. The annual taxes collected on beer alone in Würtemberg average 5,000,000 marks. That the brewery business flourishes here is evident from the

fact that while there has been a decrease in all other countries, this kingdom has augmented its product in 1880 over 1879 by 105,000 hectoliters. In Stuttgart alone, in 1880, there were brewed 144,000 centners of malt. The consumption of beer in Stuttgart during the year was 290 liters per person; in Cannstadt, 237; in Esslingen, 178; and in all Würtemberg, 164; giving a total of 823,101,648 liters of beer consumed in the kingdom during the year, against about 300,000,000 liters produced.

EMIGRATION.

During the summer months of this year emigration from Würtemberg to the United States continued steady, the elements composing it being of an excellent class of farmers and wine-growers. I dwelt so fully upon this subject in my special report to the Department in March last that but little now remains to be added, other than the question has begun to provoke a varied and wide-spread discussion in the German press, some papers vainly endeavoring to stem the tide by the publication of discouraging letters from malcontent returned emigrants who have been to America and failed to find fortunes in a week or a month after arrival.

Still, the emigrants continue going, and I am already in receipt of a communication from the local officials of one of the wine-growing regions of Southern New Jersey, who address me with a view to securing for their vineyards some of the experienced vine-cultivators of this region of Germany.

RAILROAD TRAFFIC.

The Würtemberg railway system (operated by the government) employs 5,100 officials and 2,100 laborers. It owns 332 locomotives and 782 coaches, accommodating 36,000 passengers.

A new road, 134 kilometers in length, called the Gau and Murrthal Railway, was opened to business during 1880. About 10,000,000 passengers are carried annually, nearly eight-ninths of whom travel in the third-class coaches. This popularity of the cheaper travel is explained by the fact that the coaches are constructed on the American plan, and not, as in most European countries, divided into narrow and cramped compartments.

The passenger receipts for 1879–'80 were 9,109,729 marks, and freight receipts 15,416,346 marks.

THE POSTAL SERVICE.

There are 362 post-offices in Würtemberg, employing 4,500 persons, including carriers. The proportion of letters handled in 1879–'80 was 18.4 per capita of population, and of newspapers 15.2 per capita. The postal-order system with America has been unusually active, the sum of 261,000 marks having been received from the United States by the Würtemberg post-offices, while the sum of only 76,000 marks has been remitted thither.

THE TELEGRAPH SERVICE.

There are 2,700 kilometers of telegraph lines in the kingdom, with 7,200 kilometers of wire and 46,000 poles. The telegraph offices number 400, with 680 instruments, of which 674 are of the Morse and 6 of the Hughes system. In 1879 there were transmitted 1,800,000 dispatches.

Revenues and expenditures of the kingdom.

I.—EXPENDITURES—ESTIMATED BUDGET FOR THE YEAR 1880–'81.

No.	Description of expenditures.		Amount.
			Marks.
1	"Civil list" of his Majesty the King		1, 848, 475. 20
2	Appanages and dowers		332, 033. 87
3	National debt of the kingdom:	*Marks.*	
	Interest	17, 311, 804. 35	
	Sinking fund	4, 409, 646. 49	
	Percentage on the payment of coupons	19, 000. 00	
			21, 740, 450. 84
4	Rents		476, 086. 53
5	Salaries		62, 415 81
6	General pension fund, army, and civil administration		1, 662, 072. 00
7	Quiescence—special pensions		12, 253. 00
8	Subsidies to officials, corporations, and persons in distress, &c		330, 000. 00
9	Privy council		59, 975. 00
10	Court of administration		29, 650. 00
11	Judiciary of the kingdom		3, 614, 485. 50
12	Foreign office		165, 691. 00
13	Department of the interior		4, 796, 157. 02
14	School and church departments		8, 111, 970 83
15	Treasury department		3, 066, 228. 00
16	Royal diet		345, 280. 30
17	Silent capital		105, 000. 00
18	Contribution to the German Empire		3, 317, 267. 17
	Total		50, 066, 492. 07

II.—REVENUES.

No.	Description of revenues.		Amount.
		Marks.	*Marks.*
1	Crown-land:		
	a. Cameral department	788, 100. 00	
	b. Forest	5, 378, 046. 79	
	c. Mines and foundries	150, 000. 00	
	d. Salt-works	560, 000. 00	
	e. Bleaching and dressing works at Weissenau	7, 300. 00	
			6, 883, 446. 79
2	Traffic:		
	a. Railways	13, 946, 500. 00	
	b. Postal service	550, 000. 00	
	c. Telegraphs	12, 000. 00	
	d. Steamboat traffic on the Lake of Constance	10, 600. 00	
			14, 519, 100. 00
3	Mint and coinage		2, 800. 00
4	Various miscellaneous revenues		993, 674. 53
5	Direct taxes on—		
	a. Real estate, houses, and trade	8, 723, 315. 00	
	b. Peddling	18, 000. 00	
	c. Appanages, incomes, and salaries	3, 780, 900. 00	
			12, 522, 215. 00
6.	Indirect taxes:		
	a. Excise	1, 739, 400. 00	
	b. Dogs	212, 700. 00	
	c. Public houses	7, 643, 155. 75	
	d. Perquisites	1, 150, 000. 00	
			10, 745, 255. 75
7	Addition from arrears		4, 400, 000. 00
	Total		50, 066, 492. 07

a. Railways, 1880–'81.

	Marks.
Receipts from passengers and baggage	10, 300, 000
Receipts from freight	16, 450, 000
Receipts from various other sources	1, 363, 200
Total	28, 113, 200
Running expenses	14, 913, 200
	13, 200, 000
Additional receipts from newly built railroads	746, 500
Surplus	13, 966, 500

b. Postal service, 1880–'81.

	Marks.
Receipts from postage	4,590,000
Receipts from passengers and baggage	465,000
Receipts from newspapers	270,000
Receipts from various other sources	665,000
Total	5,990,000
Expenditure	5,440,000
Surplus	550,000

c. Telegraph service, 1880–'81.

Receipts for telegrams	425,000
Receipts from various sources	15,000
Total	440,000
Expenditure	428,000
Surplus	12,000

d. Steamboat traffic on the Lake of Constance.

Receipts from passengers and baggage	133,000
Receipts from freight	150,000
Receipts for carrying the mail	8,600
Receipts from various other sources	2,314
Total	293,914
Expenditure	253,688
Surplus	40,226

of which 10,600 marks are for the government, and 29,626 marks for the sinking fund.

e. Mint, 1880–'81.

Receipts	20,000
Expenditure	17,200
Surplus	2,800

GEORGE L. CATLIN,
Consul.

UNITED STATES CONSULATE,
Stuttgart, September 29, 1881.

EXPORTS AND IMPORTS AT NINGPO, CHINA.

REPORT BY CONSUL STEVENS.

It is almost impossible to tell where the goods imported to this locality come from, as they are brought through Shanghai. There was in the last year brought to this port gray shirtings, of foreign importations, amounting in valne to $975,000, most of which, if not all, seems to have come from England. Shirtings, white, $92,000, also from England. Why is it, that American manufactures can't compete with the English in these articles? In T-cloth the United States is vastly ahead of England. In drills she falls far behind. In jeans she is still farther in the background; and I would most earnestly recommend our manufacturers

and merchants to place themselves in communication with merchants here for these lines of goods, knowing first before manufacturing what goods are best adapted. I will in my next communication endeavor to give full and accurate information. The dark blue seems to be a favorite color with the Chinese, but it would be well to say here that in my judgmen China is becoming more and more independent. First, their native merchants are gradually but surely making a combination against outsiders, and in order to succeed here business must be transacted through a Chinaman.

By way of illustration, perhaps the most successful house in that most lucrative business, the opium trade (Sassoon & Co.), make all their sales through their Chinese *compradores*, while almost any member of their firm, their agents, and managers at different ports are Chinese linguists; yet they do not attempt to make bargains themselves. For reasons only known to themselves, the Chinese always want to make their contracts through their own countrymen. With regard to the opium trade, it may be remarked that while the United States prohibits its steamers and ships from carrying this article, and will not permit American citizens to prosecute trade therein, almost every Chinese official has an interest in Chinese vessels engaged in this business. Chinese ships flying the Chinese flag can carry opium, and do so every day, while American ships under the American flag, and manned with American sailors, are excluded from doing so. All these Chinese officials are growing rich through this business, and it might be quite time enough for America to take a prohibitory attitude on this opium question when China may set the example. A glance at the figures may be of interest. The total imports for the year ending June 30, 1881, amounted to $10,500,000, of which $6,300,000 was in opium, brought to this port mostly in Chinese bottoms.

EDWIN STEVENS,
Consul.

UNITED STATES CONSULATE,
Ningpo, November 15, 1881.

THE DECLINE IN THE EXPORT OF RUBBER AT ZANZIBAR.

REPORT BY CONSUL BACHELDER.

It is well known from the consular reports sent from this consulate that rubber has been a large article of export from Zanzibar. At present the export has almost entirely ceased, as the receipts from the districts on the African coast where it is collected and prepared for shipment here, are exceedingly small.

I have been making inquiries about this decline to ascertain, if possible, the cause of it; and the good profits gained by the people engaged in collecting it, and the importance of the trade, make the inquiry quite necessary and important for the interests of all that use this product in the United States.

Unless one can make a trip to the producing districts and learn from personal observation, it is very difficult to obtain reliable information, for there are so many different interests concerned in the trade that

statements and opinions vary about as much. As a journey to the rubber section would require a great deal of time and expense, and render one undertaking it very liable to contract the severe fevers prevalent in Africa, I am unable to embark in it, and am compelled to rely on the information that I can obtain at my post, and which I will give in this report, only remarking that the same can be relied on, for I have given a great deal of attention to the subject on purpose to write understandingly. In commencing, it will be well for me to state that rubber and all other articles collected or raised on a great section of the African coast come to Zanzibar for a market, and, finding a sale, are invariably exported by the purchasers to the different markets of the world, so that, obtaining the quantity received at the custom-house, we acquire the quantity exported, and which is the only way the information can be got, as no statistics are ever given to consuls or the public by those who farm the customs for His Highness the Sultan. Even this account must be kept by the party desiring the knowledge.

The receipts of rubber at Zanzibar from November 1, 1879, to November 1, 1880, or one year, amounted to 1,086,575 pounds, while from November 1, 1880, to the same date in 1881, they only amounted to 375,795 pounds, a falling off in one year of 710,780 pounds, or over 65 per cent.

During the month of October just passed, only 4,900 pounds were received. The collection of rubber in any quantity only commenced some five years ago, and up to November, 1880, the quantity collected steadily increased, and for one month reached as much as 205,000 pounds. Since that date the quantity has steadily decreased, and the principal cause of this decline has been the greediness and foolishness of the natives in continuing the tapping of the trees incessantly, just as long as a drop of the valuable sap could be drawn out of them, instead of allowing them certain seasons for regaining or recuperating. Their greed has even carried them beyond this, as, in many cases, they have cut down many trees and pressed the wood to get the few drops they could not draw out in the usual manner.

The great scarcity and necessary loss of profit through their foolish action is showing them their extreme foolishness, but they realize anything so slowly, it will be some time yet, in all probability, before judgment will overpower greed.

There is left still a great number of the trees, and would the natives permit them to remain awhile unworked, and at regular seasons, the large quantity collected a few years ago would soon be renewed and bring them in good returns again.

Zanzibar rubber, as it is known in the commercial world, is of superior quality, and did have a good reputation until its scarcity induced natives to adulterate it by mixing in sand to increase the weight, as the article is sold by weight, and disgracefully swindled many buyers before the trick was detected.

Even now Zanzibar rubber, if it is found on careful examination to be free from adulteration, will bring good prices and find a ready sale. Present prices in Zanzibar are $19 to $20 per frasler of 35 pounds, according to quality.

LEONARD A. BACHELDER,
Consul.

UNITED STATES CONSULATE,
Zanzibar, November 7, 1881.

RUSSIA'S MANUFACTURES IN 1879.

REPORT BY CONSUL-GENERAL STANTON, OF SAINT PETERSBURG.

[In 1879 the rouble was computed at 74.8 cents. The pood=36 lbs. av.]

The following figures are taken from the statistical reports of the imperial department for trade and manufactures for 1879:

In 1879 there were in—

Localities.	Factories.	Annual production.	Hands.
		Roubles.	
European Russia	27,927	909,000,000	685,245
Hereof in the—			
50 Russian governments	22,321	797,000,000	607,677
10 Vistula governments	5,606	112,063,900	77,568

On the average, there was to one factory (*a*) an annual production in all Russia (in Europe) of 32,513 roubles; in the 50 Russian governments, 35,700 roubles; in the 10 Polish governments, 20,000 roubles; (*b*) of laborers in European Russia, 25 hands; in the 50 Russian governments, 27 hands; in the 10 Polish governments, 14 hands; (*c*) the average productive value of a laborer being, in European Russia, 1,325 roubles; in the 50 Russian governments, 1,311 roubles; in the 10 Polish governments, 1,455 roubles.

Although the most important centers of industry lie in the Russian governments, the productive value of the individual laborer is greater in the Polish governments. The following table shows the average productive value of a factory and laborer in the various governments:

Government of—	A factory.	A laborer.
	Roubles.	*Roubles.*
Moscow	124,750	1,171
Saint Petersburg	210,185	2,027
Vladimir	182,845	1,023
Pioterkoff	30,526	1,696
Kief	79,883	3,574
Liefland	85,559	1,565
Perm	8,572	1,975
Estland	711,575	2,060
Odessa (city)	87,568	4,288
Simbirsk	45,813	593
Kerstch (city)	96,192	24,409
Courland	13,378	479
Tauria	1,482	550
Tomsha	10,046	1,703
Suwalki	5,706	1,700
Warsaw	80,298	1,261

According to the year-book of the ministry of finances for 1870, there were in 1867, in all Russia, 19,431 manufactories, employing 410,225 laborers, with a productive value of 373,172,662 roubles. These figures do not include those branches subject to an excise duty. Now if 10 per cent. be deducted for Asiatic Russia and Finland, there were in 1867 17,488 manufactories, employing 369,203 laborers, with a productive value of 335,855,392 roubles.

In 1879, thirteen years later, the manufactories had increased 10,439, or 59.69 per cent.; the laborers, 316,042, or 85.60 per cent.; the value, 573,000,000, or 170.65 per cent.

Not only have manufacturing interests greatly increased, but also the productive capacity of the individual factory. In 1867 the average productive capacity of a factory, with an average of 21 hands, was 19,205 roubles; in 1879, with an average of 25 hands, it was 32,550 roubles, and the productive value of a laborer has risen from 910 roubles in 1867 to 1,325 roubles in 1879, or 45.6 per cent.

We will now proceed to consider the different branches of industry in Russia, beginning with the

FLAX INDUSTRY.

One would think that in a country like Russia, where so much attention is paid to flax culture, flax spinning and weaving, that the hackling of flax would take an important position among Russia's industries. Such, however (as is seen in the following table), is not the case, hardly the twentieth part of the flax raised in Russia receiving a proper amount of hackling.

1.—HACKLING FACTORIES.

Government.	Number of works.	Quantity.	Value.	Number of workmen.	Number of steam-engines.
		Poods.	*Roubles.*		
Pskoff	43	600,080	2,722,780	1,333	.....
Vladimir	12	161,000	699,440	1,018	.....
Poltava	2	*8,000	35,920	153	2
Olonez	2	5,800	24,000	392	.....
Total in Russia	59	774,880	3,482,140	2,896	.....

* Approximate.

From the foregoing table it will be seen that flax hackling is still in Russia in a most primitive condition. The only place where the industry is rationally conducted is Pskoff, where 4 factories, with 109 laborers, produced 380,500 poods, with a total value of 2,092,550 roubles.

2.—*Spinning mills.*

Flax spinning is by no means confined to factories, but is a widespread and productive house industry. Every industrious housewife spins her own flax, either selling it to factories or having it woven for domestic wants or for sale. The peddling of peasant linen is an extensive trade in Russia, and, like domestic spinning, is beyond the reach of statistics.

Spinning mills in Russia in 1879.

Government.	Number of mills.	Quantity.	Value.	Number of hands.	Number of spindles.
		Poods.	*Roubles.*		
Kostroma	6	441,000 flax 45,000 pieces of linen.	4, 898, 000	6, 398	57, 094
Jaroslaff	4	225,490 flax 114,462 pieces of linen.	3, 727, 050	3, 939	31, 954
Vladimir	5	198,480 flax	1, 798, 000	3, 656	25, 194
Tver	3	158,000 flax	759, 200	1, 438	.....
Kasan	1	50,000 flax 55,000 pieces of linen.	700, 000	753	.....
Livonia	1	50,000 flax	240, 000	288	.....
Ryasan	1	43,000 flax 26,100 poods rope	440, 800	736	.....
Vologda	1	24,500 flax 74,000 pieces of linen.	750, 000	954	.....
Vitebsk	1	2,800 flax	330, 000	270	1, 000
Warsaw	1	See linen factories	.....	.....	13, 000
Total	24	1,193,270	18, 643, 050	18, 432	.....

Deducting 288,462 pieces linen, 2,283,000 roubles, and 26,100 poods rope, 97,000 roubles, there remains a total flax-yarn value of 11,263,050 roubles.

In 1867 there were in Russia 14 mills, employing 8,601 laborers, and producing a total value of 4,817,707 roubles. The increase in factories was 10, or 71.43 per cent.; the laborers, 9,631, or 111.97 per cent.; the value of the productions, 7,182,293 roubles, or 149 08 per cent.

3.—*Linen industry.*

Russia's linen trade in 1879.

Governments.	Number of mills.	Quantity in pieces and arshines.	Value.	Number of hands.	Number of looms.
			Roubles.		
Vladimir ..... pieces..	27	527, 905	5, 479, 570	3, 355	5, 522
Kostroma ..... do...	13	275, 400	2, 038, 000	6, 842	.....
Warsaw	1	.....	2, 000, 000	500	1, 730
St. Petersburg ..... pieces..	3	123, 000	1, 645, 200	1, 722	.....
Jaroslaw ..... do...	7	117, 762	946, 450	.....	765
Vologda ..... do...	1	74, 000	643, 000	.....	233
Kasan ..... do...	1	55, 000	487, 000	.....	193
Plotskoff ..... arshines..	4	925, 000	289, 700	1, 791	.....
Tschernigoff ..... pieces..	15	6, 060	40, 200	192	148
Moscow	3	.....	33, 200	124	106
Kaluga	1	.....	32, 500	70	22
Archangel ..... arshines..	1	14, 000	7, 000	35	30
Tver ..... pieces..	1	500	3, 500	11	.....
Bessarabia	2	.....	3, 500	7	.....
Lynblin ..... arshines..	4	21, 100	2. 855	110	51
Kalisch	1	.....	1, 000	2	.....
Plotsk ..... arshines..	2	2, 000	350	4	.....
Total	87	.....	18, 573, 155	14, 824	.....

Deducting the flax-yarn 500,000 roubles, of the Warsaw works, we have 13,073,155 roubles as the value of the total production.

In 1867 there were 93 mills, employing 18,355 hands, with a total productive value of 5,400,697. Hence the number of the factories was decreased 6 or 6.45 per cent.; that of the hands 3,531, or 19.23 per cent., whilst the value of the annual production has increased 7,672,458 roubles, or 142.06 per cent.

A recapitulation of the three chief branches of the flax trade, gives for 1879—

Decription.	Number.	Roubles.	Hands.
Hackling mills	59	3,482,140	2,896
Spinning mills	14	11,263,050	18,232
Weaving mills	87	13,073,155	14,824
Total	160	27,818,345	35,952

HEMP INDUSTRY.

4. *Hemp-spinning mills and ropewalks.*

The latest publications of the department of manufactures do not separate the spinning mills from the ropewalks, and the following table contains, consequently, the statistics of both branches:

Governments.	Number of mills.	Quantity.	Value.	No. of laborers.
		Poods.	*Roubles.*	
Saint Petersburg	11	445,000	2,079,310	609
Orel	109	618,875	1,874,580	1,936
Tver	15	275,475	1,088,400	2,015
Yaroslaff	3	112,000	475,500	375
Odessa	2	49,100	331,000	61
Kursk	20	69,220	188,510	627
Perm	31	35,865	136,300	20
Ryasan	4	32,100	127,000	75
Smolensk	6	41,460	114,850	183
Nijnii-Novgorod	13	27,580	107,155	147
Archangel	3	12,650	76,400	95
Livonia	2	11,000	65,000	62
Kaluga	25	20,325	61,485	264
Tschernigoff	31	12,965	42,884	204
Yekaterinoslaff	3	6,400	31,900	22
Viatka	3	6,600	25,800	45
Tamboff	5	11,700	25,400	59
Simbolsk	4	6,250	20,310	32
Charkoff	2	4,200	18,000	79
Poltava	2	3,000	17,200	27
Minsk	2	4,640	17,030	22
Moscow	1	3,000	13,500	40
Samara	7	3,000	13,340	33
Mogileff	5	1,633	6,800	28
Vologda	1	800	4,600	5
Kasan	3	2,000	4,000	9
Kofno	1	1,800	4,000	6
Ufa	1	700	2,800	6
Lyublin	1	380	1,650	4
Grodno	2	350	1,512	4
Saratoff	1	500	1,500	4
Kieff	2	400	1,500	8
Voronesh	1	500	1,380	8
Pskoff	1	400	600	10
Vitebsk	1	50	175	1
Total	324	1,821,898	6,981,335	7,125

In 1867 there were 136 mills and ropewalks, employing 5,265 laborers and producing 4,571,955 roubles' worth of goods. There is, accordingly, an increase of 188 factories, or 138.25 per cent. of hands, 1860, or 35.33 per cent., and of the production, 2,409,380 roubles, or 52.68 per cent.

COTTON INDUSTRY.

Although cultivated to some extent in the Caucasian governments, as well as in certain Asiatic provinces of Russia, the great bulk of the cotton consumed comes from America and India.

Under the protection of high duties an extensive industry has sprung up, which in the coarser articles demanded by the people is able to command the Russian market.

a. Cotton spinning.

The following table shows the condition of the cotton mills of Russia in 1879:

Governments.	Number of works.	Quantity.	Value.	Workmen.	Spindles.
			Roubles.		
Moscow ..... poods..	18	1,347,260	29,790,465	30,313	669,004
Do ..... pieces..		1,748,550			
Vladimir ..... poods..	8	830,000	22,067,000	25,003	397,066
Do ..... pieces..		1,842,000			
St. Petersburg ..... poods..	12	890,000	19,281,175	17,304	724,768
Do ..... pieces..		1,513,850			
Tver ..... poods..	4	394,178	8,362,380	9,146	221,572
Do ..... pieces..		981,850			
Piotakoff ..... poods..	7	504,500	7,206,700	3,072	.....
Esteland ..... do...	1	352,140	6,620,232	2,530	290,748
Ryasan ..... do...	1	198,000	3,474,000	2,460	96,809
Do ..... pieces..		46,000			
Yaroslaff ..... poods..	3	197,000	3,041,860	3,260	.....
Smolensk ..... do...	1	144,960	2,731,125	2,522	.....
Kalisch ..... do...	10	.....	1,006,500	904	.....
Kyelze ..... do...	2	.....	508,200	260	.....
Livonia ..... do...	3	.....	508,000	597	.....
Kasan ..... do...	1	25,000	300,000	334	5,000
Kaluga ..... do...	2	21,000	278,400	437	.....
Viatka ..... do...	1	940	14,570	71	.....
Total	74		105,190,607	98,213	.....

Deducting for woven goods 32,467,000 roubles, we have for yarn value 72,723,607 roubles.

According to the year-book of the ministry of finance for 1867, for Russia in Europe, exclusive of Poland, there were in that year 54 cotton mills, employing 40,085 hands, with a total production of 49,966,635 roubles. A year later they had fallen to 48 mills, with 37,483 hands, and a productive value of 39,389,800 roubles. In 1867, exclusive of Poland, there were 62 factories, with 41,097 hands, and a productive value of 51,273,917 roubles. In comparison with these last figures, 1879 shows an increase of 12 factories, or 19.35 per cent. of 57,116 laborers, or 138.98 per cent., and of 21,193,083 roubles, or 41.33 per cent.

A portion of the hands were also employed in the weaving mills; were they deducted the number of cotton spinners would be 75,774, or an increase over 1867 of 34,677, or 84 per cent.

b. Cotton weaving.

The following table gives the condition in 1879 of the weaving trade

Governments.	No. of works.	Quantity.	Value.	Workmen.	Spindles.
			Roubles.		
Moscow ..... pieces..	263	3,306,185	22,103,335	27,046	27,992
See table *a* ..... do....	.....	1,748,550	9,554,000	.....	6,232
		5,054,735	31,657,355	.....	34,224
Vladimir ..... do....	52	3,221,115	18,302,930	19,428	16,972
See table *a* ..... do....	.....	1,842,000	11,973,000	.....	5,942
		5,063,115	30,275,930	.....	22,914

Governments.	No. of works.	Quantity.	Value.	Workmen.	Spindles.
			Roubles.		
Piotikoff.....pieces..	219	2,732,000	12,029,000	12,199	9,895
Do.....cloths..		28,000			
St. Petersburg.....pieces..	6	205,000	1,920,650	7,246	900
See table *a*.....do....	12	1,513,850	7,570,000		5,837
		1,718,850	9,490,650		6,737
Kostroma.....do....	32	1,707,600	8,683,075	8,762	
Tver.....do....	7	25,625	167,280	549	913
See table *a*.....do....		981,850	3,210,000		4,288
		1,007,475	3,377,280		5,201
Estland.....arshines..	1	34,711,000	3,072,000	1,658	2,200
Ryasan.....pieces..	11	63,760	414,100	1,050	903
See table *a*.....do....	1	46,000	160,000		
		109,760	574,100		
Kasan.....do....	5	35,000	163,300	313	300
Saratoff.....arshines...	23	608,000	73,273	1,032	1,032
Do.....cloths..		300			
Tula.....pieces..	1	8,500	50,700	300	300
Kaluga.....	10		48,165	298	250
	647		99,494,828	79,881	84,956

If the laborers employed at weaving in the spinning mills be also included, then the total number of weavers would be about 100,000.

According to the year book of the ministry of finance there were in 1867, in European Russia, 1,660 weaving mills, employing 65,558 weavers, with a total production of 34,892,106 roubles. Hereof there were 1,224 mills in Poland, employing 6,422 hands, and producing 3,325,225 roubles. There is consequently a decrease of 1,013 mills. This decrease is owing to the falling off of the small work in Poland, the 1,224 of 1867 having shrunk to 219 in 1879.

The number of Russian mills decreased but 8, or not quite 2 per cent. The value of the production increased 55,898,947 roubles, or 177 per cent. The laborers increased 25,085, or 42 per cent. In all Russia the mills decreased 1,013, or 61 per cent. The production increased 64,602,722 roubles, or 185 per cent.; the workmen 34,442, or 52 per cent.

c. Chintz manufacture.

Governments.	No. of works.	Quantity.	Value.	Laborers.
			Roubles.	
Vladimir.....pieces..	53	3,087,545	19,828,245	7,932
Do.....shawls..		216,000		
Moscow.....pieces..	35	2,436,000	18,481,225	11,627
Do.....cloths..		19,193,000		
St. Petersburg.....pieces..	7	1,133,000	9,396,450	1,677
Do.....doz. cloths..		153		
Kostroma.....pieces..	3	264,000	1,772,500	462
Piotskoff (Lodz).....pieces..	3	92,200	1,536,300	215
	101		51,014,720	21,913

In 1867 there were 152 chintz works in European Russia, with 23,018 workmen, and production of 28,561,359 roubles. There is, accordingly, in this industry, a decrease of 51 factories, or 33.5 per cent., and the hands 1,105, or 5 per cent., whilst the value of the production has increased 22,453,361 roubles, or 78 per cent.

d. Cotton waddings.

As far as can be ascertained, there were in 1879, in Russia, 58 mills, employing 562 hands, and producing about 117,000,000 poods of wadding, with a value of 719,982 roubles. In comparison with 1867, the number of the factories has decreased 37, or 39 per cent., the number of hands has increased 59, or 11 per cent., and the value of the production 274,151 roubles, or 61 per cent.

e. Dye-works and bleacheries.

The total number of these establishments in Russia in 1879 was 621, with a production valued at 10,056,920 roubles, and employing 7,454 hands. In 1867 there were 312 dye-works, &c., with 3,503 hands, and a production valued at 4,400,102 roubles. There is consequently an increase of 309 works, or 99 per cent., 3,951 hands, or 118 per cent., and 5,656,818 roubles, or 128 per cent.

All branches of the cotton trade have greatly increased during the last thirteen years, and the total increase of production in the five preceding branches equals 114,180,135 roubles.

WOOL INDUSTRY.

a. Wool-washing works.

These works are chiefly to be found in Southern Russia, in the sheep districts. The wool is purchased directly from sheep-owners, and after undergoing the washing process, in which chemicals assist, becomes a much finer article than by earlier processes.

In 1867 there were 33 wash-works, with 4,911 hands and a production valued at 2,904,515 roubles. In 1879 there were 36 works, with 6,043 hands and a production valued at 11,854,648 roubles—the number of the works increasing 1 per cent., the hands 23 per cent., the production 308 per cent.

b. Wool combers.

This is a new industry for Russia and is but little developed. There are at present 19 works, employing 62 hands, with a production valued at about 40,440 roubles.

d. Wool spinning.

Wool spinning in Russia is very universal, being as much, if not more, of a house industry than a factory one. Almost every peasant keeps a few sheep, whose wool seldom enters commerce, but is spun and consumed at home.

The following table gives the particulars of the wool-spinning mills in Russia in 1879:

Governments.	Number of works.	Quantity.	Value.	Number of workmen.
		Poods.	*Roubles.*	
Piotikoff	29	159,400	5,571,650	1,481
Moscow	24	96,306	4,155,820	3,717
		8,000		
St. Petersburg city	4	34,175	612,725	335
Tver	1	20,000	610,400	450
Kalish	6	13,000	480,000	195
Grodno	12	11,610	339,000	165
Tschernigoff	1	2,200	77,000	38
Warsaw	1	2,000	75,000	30
Livonia	3	750	22,500	26
Vladimir	1	750	22,000	16
Estland-Reval	1	250	7,075	13
Bessarabia	1	150	1,000	3
	84		11,974,170	6,489
Add wool spun in cloth mill, Moscow			50,000	
			12,024,170	
Deduct cloth made in Moscow			380,000	
Leaves yarn value			11,644,170	

In 1867 there were 42 mills, with 5,251 hands, and a production valued at 3,025,732 roubles. So that in 1879 there was an increase of 42 mills, or 100 per cent.; of laborers 3,337, or 105 per cent.; of the production 8,618,438 roubles, or 284 per cent.

e. Manufacture of woolen stuffs.

In 1867 there were in European Russia 680 woolen mills, with 18,673 hands, and a production valued at 13,156,969 roubles, of which 564 mills, with 3,204 hands, and a production of 2,169,118 roubles, were in Poland. In 1879 the condition of the Russian mills was as follows:

Governments.	Number of mills.	Quantity.	Value.	Hands employed.
			Roubles.	
Moscow ..... pieces	161	890,450	21,226,700	21,821
Do ..... arshines		8,159,500		
Piotikoff ..... poods	115	816,000	13,521,500	6,304
Do ..... pieces		431,000		
Livonia	5		1,028,090	810
Warsaw ..... arshines	5	21,300	14,015	41
Kaluga ..... pieces	1	200	9,000	8
	287		35,799,215	28,984
Deduct 3,159,500 arshines cloth			6,319,000	
Gives total for woolen stuffs			29,480,215	
Plus—see wool spinning			380,000	
			29,860,215	

Whilst the number of factories in the Russian Government has increased 51, or 44 per cent., that of the Polish Government has decreased 444, or 79 per cent. In European Russia the mills decreased 393, or 58 per cent., the number of laborers increased 10,311, or 56 per cent., and the value of the production 16,703,246, or nearly 127 per cent.

f. Cloth mills.

The following table shows the condition of this branch of trade in European Russia in 1879:

Governments.	Number of works.	Quantity.	Value.	Workmen.
			Roubles.	
Moscow ..... pieces..	54	462, 085	23, 912, 390	21, 625
See table 13..... arshines..		3, 159, 500	6, 319, 000	.....
See table 12..... poods yarn..		1, 500	.....	.....
Grodno ..... arshines..	198	2, 867, 800	6, 831, 139	6, 298
Do ..... cloths..		81, 600	.....	.....
Simbirsk ..... do...	24	5, 796, 000	6, 808, 800	13, 334
Piotikoff ..... do...	176	2, 754, 000	6, 089, 500	3, 515
Do ..... poods yarn..		41, 000	.....	.....
Saint Petersburg ..... pieces..	5	79, 740	3, 473, 900	2, 440
Pensa..... arshines..	7	1, 804, 000	2, 370, 150	4, 163
Tamboff ..... do...	9	1, 966, 500	2, 217, 860	4, 559
Tschernigoff ..... do...	13	1, 449, 800	2, 139, 390	963
Livonia	4	.....	1, 825, 000	1, 490
Saratoff ..... do...	8	1, 449, 000	1, 784, 725	3, 726
Kaluga ..... do...	2	936, 000	1, 569, 600	1, 404
Estland ..... do...	1	200, 000	800, 000	519
Kalish	19	.....	794, 500	775
Kursk ..... do...	1	700, 000	750, 000	1, 100
Samara	4	.....	659, 500	1, 186
Kief ..... do...	18	232, 550	604, 056	898
Do ..... cloths..		250, 237	.....	.....
Tula ..... arshines..	5	450, 000	542, 820	788
Vahlynia ..... do...	42	305, 125	439, 995	631
Minsk ..... do...	6	126, 220	383, 526	548
Perm ..... do...	2	364, 000	285, 000	1, 030
Podolia ..... do...	42	287, 500	284, 800	304
Ryasan ..... do...	3	222, 000	231, 700	563
Kasan ..... do...	3	185, 000	198, 400	408
Yaroslaff ..... pieces..	1	3, 000	180, 000	176
Ufa..... arshines..	1	150, 000	175, 000	519
Nijnii Novgorod ..... do...	1	85, 000	86, 630	361
Poltava.....	5	.....	57, 460	34
Lyublin ..... do...	16	40, 000	35, 650	63
Lomsha ..... do...	1	16, 000	15, 680	75
Radom ..... do...	2	6, 931	7, 731	13
Kyelze ..... do...	1	.....	6, 000	3
Mogilew..... do...	2	1, 484	5, 987	19
Vladimir ..... pieces...	1	150	4, 600	29
Lyedlez..... arshines..	8	5, 090	3, 020	13
Bessarabia..... do...	3	.....	1, 400	8
Charkoff..... do...	1	200	220	14
Total	688	.....	71, 865, 129	73, 581

In comparison with 1867 the number of the workmen decreased 340, or about 4 per cent; the number of the factories increased 1; the value of the production 35,919,652 roubles, or about 100 per cent.

g. Carpet manufacture.

This branch of manufacture is of but little importance in Russia, and in comparison with 1867, has fallen off in the production about 40 per cent.

h. Felt manufacture.

There were in 1879 48 felt manufactories, employing 469 workmen, and a production valued at 211,410 roubles. In comparison with 1867, the factories decreased 29, or 38 per cent., the number of the workmen increased 174, or 59 per cent., and the production 140,825 roubles, or nearly 200 per cent.

SILK INDUSTRY.

Although Southern Russia, particularly Caucasia, is peculiarly adapted to the culture of the silk-worm, and although this industry flourished in the past, silk-worm disease has almost completely ruined this branch of trade, and Russia's silk culture of to-day is of little or no or no great importance.

a. Manufacture of silk stuffs.

This branch of the silk industry has made considerable progress during the last decennium; the number of the factories, as compared with 1867, having increased 93, or 136.7 per cent., the number of laborers 6,212, or 125 per cent., the value of the production 4,678,287, or 128 per cent. In 1879 there were in the following—

Governments.	No. of works.	Value.	Laborers.
		Roubles.	
Moscow	122	6, 573, 825	8, 939
Vladimir	23	1, 050, 200	1, 704
Plotikoff	6	449, 000	317
St. Petersburg	7	249, 730	205
Warsaw	1	24, 000	10
Astrachan	2	660	4
	161	8, 347, 415	11, 179

b. Silk band and ribbon manufacture.

In 1879 there were 13 factories in European Russia engaged in this trade, employing 598 laborers, with a production valued at 926,600 roubles. In comparison with 1867 there is an increase of 5, or 62.5 per cent., in the factories, of 256, or 75 per cent., in the laborers, and of 676,830 roubles, or 270 per cent., in the value of the production. To these factories should be added those scattered over Russia's Asiatic possessions, but for which all data are lacking.

Cotton band manufacture.—This industry is conducted on a larger scale in Russia than that of silk, and in 1879 there were 54 factories, employing 1,437 laborers, with an annual production valued at 989,020 roubles.

In comparison with 1867 there is an increase of 40 in the number of the works, or 285 per cent., of 1,112, or 342 per cent., in the workmen, and 861,264 roubles, or 674 per cent., in the value of the production.

Hosiery trade.—In 1879 there were 39 factories engaged in this branch, employing 846 laborers, and having an annual production valued at 870,120.

In comparison with 1867 the factories have increased 15, or 62.5 per cent., the laborers 566, or 195 per cent., and the production 650,668 roubles, or 358 per cent.

Manufacture of trimmings.—In 1879 there were 63 factories, employing 2,033 hands, and producing articles valued at 2,529,536 roubles.

Compared with 1867 the factories had increased 38, or 152 per cent., the laborers 1,096, or 116 per cent., and the value of the production 1,766,320 roubles, or 231 per cent.

Finishing and dressing mills.—In 1879 there were engaged in this branch 76 factories with 3,575 hands, and an annual production valued at 5,476,507 roubles.

Hat manufactories.—In 1879 there were 31 factories, employing 612 hands, and producing annually articles estimated at 957,560 roubles. Compared with 1867 there is an increase in the factories of 11, or 53 per cent., the laborers 215, or 54 per cent., in the value of the production of 535,345 roubles, or 126.8 per cent.

MANUFACTURE OF FLOOR-CLOTH AND WATER-PROOF STUFFS.

In 1879 there were of this class 29 factories, employing 923 hands, and producing annually goods valued at 1,454,655 roubles.

Compared with 1867 there is an increase of 23, or 383 per cent., in the factories, 872, or 1,710 per cent., in the laborers, and 1,408,885 roubles, or 3.078 per cent., in the value of the production.

Kind of works.	Number of works.	1879 as compared with 1867.	Value of the production.	1879 compared with 1867.	Number of laborers.	1879 compared with 1867.
		Per cent.	*Roubles.*	*Per cent.*		*Per cent.*
Flax-hackling works	50	.....	83,482,140	.....	2,896	.....
Flax-spinning mills	24	+ 71.43	11,263,050	+149.08	18,232	+111.97
Linen works	87	— 6.45	13,073,155	+142.06	14,824	— 19.23
Hemp-spinning and rope works	324	+138.23	6,981,335	+ 52.68	7,125	+ 35.33
Cotton-spinning mills	74	+ 19.35	72,723,607	+ 41.33	98,213	+138.98
Cotton-weaving mills	647	— 61	99,494,828	+183	79,881	+ 52
Chintz mills	101	— 33.5	51,014,720	+ 78	21,913	— 5
Cotton-wadding mills	58	— 39	719,982	+ 61	562	+ 11
Dye works and bleacheries	621	+ 99	10,056,920	+128	7,454	+118
Wool-washing mills	36	+ 1	11,854,648	+308	6,043	+ 23
Wool-combing mills	19	.....	40,440	.....	62	.....
Wool-spinning mills	84	+100	11,644,170	+284.8	6,489	+105.08
Woolen-weaving mills	287	— 58	29,860,215	+127	28,934	+ 56
Cloth mills	688	— 4	71,865,129	+100	73,581	+ 1
Carpet mills	6	— 50	233,640	— 40	407	— 60
Felt mills	48	+ 38	211,410	+200	469	+ 59
Silken-stuff mills	161	+136.7	8,347,415	+128	11,179	+125
Silk-ribbon works	13	+ 62.5	926,600	+270	598	+ 75
Cotton-ribbon works	54	+285	989,020	+674	1,437	+342
Hosiery mills	39	+625	870,120	+358	856	+195
Trimming works	63	+152	2,529,536	+231	2,033	+116
Finishing works	76	.....	5,476,507	.....	3,575	.....
Hat factories	31	+ 53	957,560	+126.8	612	+ 54
Floor-cloth and water-proof stuff mills.	29	+383	1,454,655	+3,078	923	+1,710
	3,629	.....	416,070,802	.....	388,348	.....

From the foregoing table, which is a brief recapitulation of Russia's leading industries, it will be seen that all branches, excepting the carpet trade, have made great progress during the thirteen years from 1867 to 1879.

In a few cases the number of the factories has fallen off, but as the production has invariably increased, the decrease in the number is owing, doubtless, to the absorption of the smaller by the larger mills.

EDGAR STANTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, November 16, 1881.

RUSSIA'S SANITARY STATISTICS FOR 1879.

REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.

The report of the department of medicine for 1879 contains numerous and interesting statistics, of which the following figures are particularly noteworthy as exhibiting the sanitary condition of the Russian people in 1879 as compared with 1878.

Of 1,568,315 boys born in 1858, there were twenty years later but 760,622 living. Of these 272,974 were examined by the staff physicians at the time of their enlistment. Out of this number 58,824 youths, or 21.5 per cent., were afflicted with one or the other disease. Nine thousand six hundred and eighty-six, or 16.4 per cent., suffered from malformation, hereditary diseases, or partial development of body and nerves; 40,957, or 69.6 per cent., suffered from neglect during infancy, and faulty treatment of previous diseases; 8,181 suffered from varicose veins, syphilis, stone, cancer, dropsy, &c.

These figures exhibit the sad fact, that of 1,568,315 boys born in 1858, but 47.8 per cent. attained their twenty-first year, and but 37.6 per cent. were perfectly healthy.

The exhibit in 1878 was much more favorable. Of the boys born in 1857, 49.3 per cent. attained their twenty-first year, and 40 per cent. were healthy.

In 1879 infectious diseases were extremely prevalent, as shown in the following table:

Disease.	Cases.	Deaths.
Small-pox	89,156	25,574
Scarlet fever	22,242	4,971
Diphtheria	83,275	33,815
Typhoid	80,112	8,073
Dysentery	23,865	3,284
Febris-recurrens	9,139	621
Syphilis	169,117	939

The small-pox has not only increased, but has become more dangerous. In 1877 there were 10,287 cases, of which 25.6 per cent. terminated fatally; in 1878, 48,341 cases, of which 26.6 per cent. died; in 1879, 89,156 cases, with a mortality of 28.4 per cent.

An interesting and exhaustive chapter of the report is devoted to the Vetlyanka-pest, which has now, however, a mere historical interest.

Truly dreadful and, if possible, more disquieting than the progress of the diphtheria, which ravages chiefly among children, is the spread of syphilis. This disease, by nature permanent, contagious, hereditary, finds in the immorality and the imperfect development of the people the most fruitful soil, and poisons not only the present, but generations to come.

The existing means of combating the disease have proved utterly insufficient; hence it is natural that the report should advocate exceptional laws for controlling the syphilitics, whose number was recently stated to be more than a million, with an annual increase of twenty thousand, and who, the report states, require, in the interest of the community at

large, extraordinary legal attention, as urgently as those persons suffering from insanity.

EDGAR STANTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, August 21, 1881.

RUSSIA'S INTERNAL NAVIGATION IN 1878 AND 1879.

REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.

The total length of Russian water-ways, natural and artificial, amounts to about 52,000 versts. The majority of these water-ways were in 1879, as also in the preceding year, open to navigation from six to ten months, the shortest period, 182 days, being at Archangel, the longest, 298 days, at Astrachan. On the whole, navigation opened in 1879 a little later than in 1878, but earlier than in 1877, and closed earlier than in either of the preceding years.

For internal navigation there were built, in 1879, 6,353 boats, 5,341 of which cost more than 50 roubles each; 1878, 7,283 boats, 6,261 of which cost more than 50 roubles each; 1877, 7,267 boats, 6,442 of which cost more than 50 roubles each; 1876, 9,315 boats, 7,825 of which cost more than 50 roubles each; 1875, 9,033 boats, 7,425 of which cost more than 50 roubles each; 1874, 8,548 boats, of which 6,808 cost more than 50 roubles each; 1873, 7,939 boats, 6,451 of which cost more than 50 roubles each.

The average number built during the five years 1873–1877 was 8,420, of which 6,990 represented a value of more than 50 roubles each.

Compared with the average for the five years 1873–1877, the ship-building trade of 1878 shows a decrease of 13 per cent., that of 1879 of 24 per cent.

The number of boats built, and representing a value of more than 50 roubles each, is divided as follows among the following districts, viz:

Years.	SEAS.				
	White.	Baltic.	Black.	Azof.	Caspian.
1879	253	1,475	318	278	3,017
1878	254	1,547	333	253	3,874
1877	287	2,066	183	147	3,759
1876	299	1,768	191	260	5,307
1875	483	1,751	277	329	4,585
1874	197	1,714	237	312	4,348
1873	248	1,853	308	269	3,773

From this table it will be seen that in the district of the Caspian basin ship-building is best developed, being during the five years 1873 to 1877 62 per cent. of the whole amount built; the Baltic basin takes the second position with 26 per cent.; whilst the White, Azof, and Black Sea basins participate, respectively, with but 4½ per cent., 4 per cent., and 3½ per cent.

In 1878, among the vessels plying on the internal waters of Russia

were 820 steamers, of which 148 were passenger, 72 passenger and freight, 55 tow and passenger, 22 freight, 501 tow, and 22 various steamboats. Of these steamboats, 38 belonged to the government municipalities, 265 to steamship companies, 517 to private persons. Sixty-seven were built previous to 1855, 208 between 1855 and 1860, 109 between 1860 and 1865, 186 between 1865 and 1870, 114 between 1870 and 1875, 75 between 1875 and 1878; of 61 the age could not be ascertained. Of these steamers, 471 were built in Russia, 23 in Finland, 102 in Great Britain, 84 in Belgium, and 86 in other European countries; of 54 the builders could not be ascertained. Six hundred and sixty-two were built of iron, and 111 of wood. Sixty-nine steamers had machinery of 20 horse-power and less; 78 steamers had machinery of 20 to 30 horse-power; 101 steamers had machinery of 30 to 40 horse-power; 79 steamers had machinery of 40 to 50 horse-power; 125 steamers had machinery of 50 to 60 horse-power; 36 steamers had machinery of 60 to 70 horse-power; 93 steamers had machinery of 70 to 80 horse-power; 16 steamers had machinery of 80 to 90 horse-power; 55 steamers had machinery of 90 to 100 horse-power; 514 steamers had machinery of 100 to 200 horse-power; 7 steamers had machinery of 200 to 300 horse-power; 4 steamers had machinery of 300 to 400 horse-power; 3 steamers had machinery of 400 to 480 horse-power.

Sixty-six steamers had a draught of 2 feet and less; 108 steamers had a draught of 2 to 2½ feet; 200 steamers had a draught of 2½ to 3 feet; 218 steamers had a draught of 3 to 4 feet; 57 steamers had a draught of 4 to 5 feet; 97 steamers had a draught of 9 to 14 feet.

Five hundred and seven steamers plied in the basin of the Caspian Sea, 210 in the basin of the Baltic Sea, 49 in the basin of the Black Sea, 43 in the basin of the Sea of Azof, and 11 in the basin of the White Sea.

The greatest traffic was on the Volga, between the mouths of the Oka and Kama Rivers, where 418 steamers plied. The next most important was between the mouths of the Schessna and the Oka, where 350 steamers plied.

The following table exhibits the total number and value of vessels and rafts plying on Russia's internal waters during the last six years:

Years.	Number of freighted vessels.	Number of rafts.	Value of cargoes and rafts.
			Roubles.
1878	54,060	88,821	179,352,961
1877	47,423	95,704	167,129,681
1876	47,933	80,995	180,212,433
1875	46,496	86,620	186,429,585
1874	48,193	95,042	179,969,412
1873	51,816	91,972	192,912,567

The freight transported in 1878 on Russia's internal waters consisted of—

	Roubles.
Merchandise, 189,346,942 poods, worth	158,912,722
Fire-wood, 158,962,315 poods, worth	4,040,178
Coal, 899,729 poods, worth	115,667
Lumber, 58,024,245 poods, worth	4,578,786
Building materials, 71,034,461 poods, worth	3,946,199
Various, 40,877 poods, worth	87,168

The total amount of ships' dues collected, was, in—

	Roubles.		Roubles.
1879	682,147	1875	655,584
1878	581,261	1874	660,350
1877	572,228	1873	696,678
1876	609,854		

EDGAR STANTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, August 21, 1881.

SOLICITING IMMIGRATION FROM EUROPE.—IMPROPER ACTION OF EMIGRATION AGENTS.

REPORT BY CONSUL DU BOIS, OF AIX LA CHAPELLE, GERMANY.

This consulate is continually receiving papers, pamphlets, and other documents upon the subject of emigration to the United States. Generally accompanying these prints there are letters written by the secretary of some emigrant society, in which the consular officer is requested to place the documents where they will do the most good. After a careful examination of these publications a patriotic American would conclude that, so far as the majority of them are concerned, the question in reality for the consular office to decide is, where can they be placed so as to do the least harm to the United States. Most of these documents come from organizations interested in securing immigration to the Southern and Western States. If the publication comes from an organization interested in a particular State, it enthusiastically informs the reader that within the jurisdiction of that commonwealth alone can labor find a comfortable home, because all other States have disadvantages which will defeat the emigrant in his efforts to secure an honest livelihood. If the pamphlet is issued by a committee of patriotic gentlemen concerned in Northwestern immigration, it announces in glowing terms that all of the region north of the thirty-ninth parallel and west of the Ohio River is the garden spot of the new world, where nature gives so bountifully that man has only to stretch out his hands and receive. It is the paradise of the immigrant and the farmer's fruitful harvest home. It has, according to the modest opinion of the committee, more lakes and rivers, and the same are larger, and deeper, and contain more fish than any other section of the western hemisphere. Its transportation facilities are more complete, the railroad officials more polite and disinterested, and the cost of placing the various grain productions in the Eastern markets is cheaper than can be found in any other part of our national domain. Its forest lands grow trees which attain such an immense height that cones falling from the pines have to take good aim in order to strike the earth; in short it is, in the humble estimation of the aforesaid committee, a broad expanse of fertile prairie, burdened with wheat and corn, fenced in by great reaches of valuable timber land, where the farmer and the lumberman find life so prosperous and agreeable that they vigorously object to death.

To this gentle and lowly-tempered statement no well-regulated patriot would raise any special objection; but when the diffident committee have

finished this charming picture, and eagerly held up to the gaze of the would-be emigrant a sketch of the great South and Southwest, one can see in it only shameful ridicule and impudent falsehood.

In his picture of the Southwest the north-of-the-thirty-ninth-parallel man meekly observes that all the region south of his line, stretching far away to the great Gulf, has disadvantages of which, from a feeling of natural pride, he will only mention a few of the most insignificant evils. By insinuation and positive statement the reader is led to believe that the summers there are long and insufferably hot; that the climate is so enervating that a strong man, used to the moderate temperature of Middle Europe, gradually becomes incapacitated for work; that malaria stalks mercilessly abroad in the land, and the constituent parts of yellow fever enter the lungs at every inhalation; that the water is so unwholesome as to superinduce dysentery, and droughts are sometimes of such long duration that the best of cows even refuse to give milk.

Then comes a package of documents from an emigrant organization interested in advancing the welfare of the Southern and Southwestern States. Here we find the picture reversed; here another pocket-book is interested, and patriotism is again ignored. In these prints we are informed that the great South and Southwest was especially created and arranged for the emigrant. Its climate is milder and softer and more conducive to the general health of the body and contentment of the mind than any other climate which enjoys the presence of mankind. Its lakes and rivers are described as being so deep and clear that one would think that by careful observation he might see Commodore Schufeldt actively engaged in carrying out his harbor improvement and coast-line fortification plans for our ambitious copper-colored antipodes. Its soil yields so generously to the touch of the husbandman that the ordinary farmer is compelled to build granaries six stories high, with elevators attached; and the temperature is never uncomfortably cold, and seldom so warm but what it might be warmer.

Thus having timorously depicted the attractive qualities of his section of the great republic, the south-of-the-thirty-ninth-parallel man hastens to call the attention of the would-be emigrant to that broad expanse of territory located by the goodness of God north of the thirty-ninth parallel which five months of the year is one vast field of ice dotted with enormous snow banks, in comparison to which Mont Blanc would resemble the little end of nothing polished down to a point. In that unhappy region the reader is led to believe that forest fires rage in summer time with such savage intensity as to melt the rock bottom out of wells, burn up rivers, and sometime seven set Lake Superior to boiling. That a large portion of the soil is better adapted to the cultivation of goats and gravel stones than corn and wheat, and that the unfortunate inhabitants would gladly move down to the beautiful region south of the thirty-ninth parallel if their sojourn north of that line had not impoverished them to such an extent that they have not sufficient means with which to accomplish the transfer.

Thus the different sections of the noblest land on earth fight each other with bitter words without reason and without justice.

The above description of the documents with which some of the emigrant societies are flooding Europe is of course not a literal translation, but it fairly illustrates the spirit and tone in which many of them are written. In sending these prints to the various consulates for distribution the societies do not seem to realize that they are asking the officers of the United States Government stationed in Europe to assail certain portions of our national domain in the most unreasonable and incon-

sistent terms, to condemn and ridicule one section, and to overpraise and exaggerate the good qualities of another; in short, to place in the hands of men who are comparatively ignorant of the true condition of things in America documents which could only tend to confuse and discourage those who are anxious to seek new homes in the great Republic of the West.

On the 30th day of last March I forwarded to the Department of State a report on the subject of emigration, which was published largely in the American press, and which was subsequently translated and received a large circulation in this country. In that report it was proven by carefully-arranged statistics what a great national blessing to the United States had been the remarkable immigration of Germans during the past few years. In that report a prediction was made that during the current year two hundred thousand German emigrants would arrive at our various ports, bringing with them over fourteen millions of dollars in ready money, and a representative value in skill and labor of nearly two hundred millions more. How correct that prophecy was, the figures which will be made public during January next will amply demonstrate. Conscious, therefore, of the inestimable benefits which our country derives from the immigration of skilled labor, it does not accord with my convictions of duty nor with my idea of patriotism to put into the hands of the would-be emigrant a series of documents emanating from organizations located in various parts of the Union, which are burdened with false and damaging statements aimed at the most vital interests of different sections of the republic. I have a large quantity of these publications stowed away among the unimportant archives of this consulate, and it would not be untimely to inform those organizations which have been unpatriotic enough to issue them that a consular officer would as soon place a free ticket for Australia or South America into the possession of the would-be emigrant as to recommend for his perusal such statements concerning the United States.

Papers and pamphlets which deal honorably and fairly with the subject of emigration will always find a hearty welcome here, but documents fraught with praise for one section of the Union and curses for another will slip promptly into our waste-basket and ultimately find their way into the cart of the rag-picker, where it will be impossible for them to accomplish much harm.

JAMES T. DU BOIS,
Consul.

UNITED STATES CONSULATE,
Aix-la-Chapelle, November 24, 1881.

THE GERMAN PETROLEUM DISCOVERIES.

REPORT BY CONSUL SCHOENLE, OF BARMEN.

The predictions made in my report on the discovery of petroleum wells on the "Lüneburger Heide" in Hanover, near Peirie, to the effect, namely, "that the supply and quality of oil from these wells would prove of importance," have been partly realized.

The opening of Mr. Mohr's wells created quite a petroleum "boom" in Germany, and several companies with considerable capital sprang almost immediately into existence. In order to commence operations in the newly discovered oil region, a speculative fever was developed

in petroleum stock on the principal German bourses, and the ground of the oil territory, formerly almost worthless, was purchased at prices ranging between $750 and $1,000 per acre. Troops of sight-seers flocked to gaze at the works in operation, and frequent experimental borings were made, and are still being prosecuted vigorously. There are so far *twelve* organized companies, and some English companies have recently acquired large tracts of land for boring purposes. In the vicinity of Celle, borings are conducted under the direction of American engineers, in the same manner and by the same methods as were practiced in the oil fields of Pennsylvania. It is asserted on creditable authority that a commission of experienced engineers from the United States propose visiting the German oil region with a view to examining the oil deposits, and eventually acquiring boring privileges.

About a week ago, for the *first time*, ten car loads of German refined petroleum were brought to market and sold for account of the German Petroleum Boring Company at Peirie to a wholesale house at Bonn on the Rhine. This transaction was heralded in all the German papers as the harbinger of prospective riches from the new German oil fields. This first marketable yield has stimulated speculation, and the hope is expressed that these oil wells will in the near future not only provide for Germany's own wants, but will also produce enough to enable German operators to undersell American oil market and to become in their turn exporters of petroleum.

Notwithstanding the fact that Germany imported during the last year from the United States not less that 64,979,932 gallons of refined oil, and 2,703,109 gallons of raw petroleum, these possibilities are eagerly discussed and are often confidently asserted. It is, however, improbable that the German springs can ever be made to work in successful competition with American yield, and it has not so far been proven by geological investigation whether the yield of the Germam wells give any reliable permanence.

WOLFGANG SCHOENLE,
Consul.

UNITED STATES CONSULATE,
Barmen, November 15, 1881.

COFFEE AND COFFEE TRADE OF HAYTI.

REPORT OF CONSUL-GENERAL LANGSTON.

The price of coffee paid to producers, at present, is $6.50 per hundred pounds. In European markets it averages about 53 francs; and in America it commands from $9.25 to $9.50 per hundred pounds.

Those claiming that the price of coffee affects disastrously the business of the country maintain that the producers, in view of low prices, are not disposed to put upon the market even the small quantity which they have, and hence transactions in this product are comparitively insignificant.

The active season in this city and the country generally, as far as business is concerned, usually commences about the 1st of September; when deliveries of coffee are made from the coast in increasing quantities, up to the 1st of January, when the decline in quantity commences, and continues gradually up to the 1st of April, at which time the entire crop of the year is supposed to have been delivered.

The three months during which the largest deliveries of coffee are made are October, November, and December.

Last year the amount of coffee delivered for the months of September, October, and November was, for the first month, 6,883 bags; for the second, 12,537; and for the last, 5,220; making, for the three months named, 34,640 bags.

For the same period of the present year there have been delivered, for the first month, 4,543 bags; for the second, 6,952; and for the last, 10,116; aggregating, for the time indicated, 21,611; showing a difference of 13,029 bags less this year than last.

During the month of December, 1880, 26,157 bags from the coast, and 11,000 from the interior, were delivered in this city. It is not supposed that anything like such quantity will be delivered during the present month.

In estimating the price of coffee in this port, delivered for shipment, either to the United States or Europe, and in order to ascertain the actual cost there must be added to the original price paid, first, export duties, which aggregate a cost, per hundred, of $3; secondly, charges made for weighing, handling, and shipping, 50 cents per bag; thirdly, the charge of 25 cents for bag; and fourthly, from 2 per cent. to 2½ per cent. commissions. Making this estimate upon the supposition of 100 pounds of coffee to the bag, the actual cost thereof from this port would be, as estimated, $10.20, not including charges of freight or insurance.

From such showing it will be seen that there is no inducement favoring the purchase and shipment of coffee at this time. It is probably true that those are shipping, mainly, who are using coffee as a remittance against foreign obligations. Considerations of wise business management, under existing circumstances, certainly do not warrant the general purchase and shipment of this product.

As regards the complaint that money is scarce, it is believed that the condition indicated is rather apparent than real. There is money enough, but no profitable investment is discovered, and it is of course held in reserve.

Should coffee advance so as to make investment for its exportation profitable, it would soon be discovered that the large dealers—those shipping in large quantities, either directly to Europe or by way of New York, to secure the advantages of a double market—would find all the funds required.

Of course, so long as there exist limited deliveries and exportations, the public treasury must experience more or less financial embarrassment, seeing it is sustained mainly by revenue from imports and exports, and principally from the duties paid upon the exports of coffee. Such embarrassment with respect to government supplies always creates stringency in currency, especially in a country where monetary supplies depend, as in Hayti, upon the revenues of its customs.

With regard to local transactions, while the principal houses seem to be well supplied, business is generaly dull, and with but faint prospect of early revival. This condition of things necessarily affects disadvantageously all importations, and they are growing measurably limited, both as regards those from Europe and those from the United States.

Business observation and experience in this country justify the opinion that whatever affects the production, sale, and shipment of coffee, under ordinary circumstances, affects general business in all its branches. When abundant or remunerative, coffee increases, improves, and promotes universal trade, and when scarce or depreciated in price, as at present, produces inactivity and financial stringency therein.

Notwithstanding this condition of affairs, the budget of the government for the ensuing year aggregates $4,478,546.05, detailed and appropriated to meet the expenses of its several departments as follows:

To the department of state of finances and of commerce	$476,118 72
To the department of state of foreign relations	267,210 00
To the department of state of war and marine	1,050,910 30
To the department of state of the interior	1,142,583 32
To the department of state of justice	321,370 46
To the department of state of public instruction	726,728 00
To the department of state of worship	65,147 25
To the department of state of agriculture	428,478 00

Besides, according to act of the Corps Législatif of the 21st of October last, to balance the receipts and expenditures of the fiscal year 1881–1882, the government is authorized to borrow the sum of $500,000. Such appropriation and loan, made and based upon the receipts of the government as made in former years, would seem to presuppose at least a condition of general business, internal and foreign, with respect, certainly, to exports and imports, as large and remunerative as that which has heretofore existed, adequate to the production of the sum of $4,978,546.05, an amount about equal to the ordinary annual receipts of the public treasury of this republic.

JOHN M. LANGSTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Port au Prince, Hayti, December 6, 1881.

THE NEW FRENCH TARIFF.

REPORT BY CONSUL-GENERAL WALKER, OF PARIS.

[In No. 9, July, 1881, of Consular Reports, the Department published the new tariff of France, promulgated May 8, last, and which was translated in the Bureau of Statistics of this Department from the *Journal Officiel de la République Francaise* of that date.

The United States consul-general at Paris has since forwarded to the Department a later and revised edition of this new law, which is herewith published, with the following report thereon. It will be observed that the consul-general classifies the articles according to industries instead of giving the same in sequence of numbers as officially published. He also gives the old and conventional tariffs as well as the new, which the Department was unable to do in its translated copy as published in Consular Report No. 9.—[NOTE BY THE DEPARTMENT.]

I transmit herewith a "comparative statement of the old, the conventional, and the new tariff of France, especially in respect of articles which were prohibited or subjected to prohibitory duties in the old tariff, and also a comparative statement in respect of articles the duties on which have been sensibly increased by the new tariff." These statements show—

1st. The duties imposed prior to May 8, 1881, upon goods or merchandise imported into France from countries having no treaties or conventions of commerce with France.

2d. The duties which were and which will be levied upon goods or merchandise imported from countries having treaties or conventions of commerce with France till the expiration of said treaties or conventions.

3d. The duties fixed by the new general tariff promulgated on the 8th of May, 1881.

The nations having treaties or conventions of commerce with France are England, Belgium, Italy, Switzerland, Sweden and Norway, Holland, Portugal, Austria, Turkey, and Germany.

The following law respecting the extension of these treaties was promulgated on the 20th of July, 1881:

ONLY ARTICLE.—The government is authorized to extend for three months from November 8, 1881, the treaties and conventions of commerce actually in force.

The present law agreed upon by the senate and the chamber of deputies shall be executed as a statute law.

It was understood that the French cabinet could only grant the extension fixed by the above law in case commercial conventions were signed before that epoch, or if the pending negotiations gave reason to expect the early conclusion of new treaties.

In answer to the fourth question, I have to report the following general provisions of the law and the powers of the government, as to providing revenue from imports and altering and modifying existing laws imposing duties on imports:

General provisions.—Customs duties, like all other duties or taxes, cannot be definitively fixed except by law. Their rates are fixed by special laws, and their collection is authorized every year by the fiscal law.

Powers of the government.—The executive power may, in case of urgency, administratively and by simple decrees alter or modify provisionally the rates of duties on imports and prescribe certain measures regulating the collection of duties, viz:

1st. It may prohibit the entry of merchandise of foreign manufacture, or increase the rates of duty on its importation into France; in case of prohibition, however, if it can be proved that such merchandise was shipped prior to the promulgation of the decrees, it may be admitted after payment of the duties and according to the rates fixed before the prohibition.

2d. It may reduce the rates of duty imposed upon raw material used for manufacturing purposes.

3d. It may allow or prohibit the exportation of products of the soil or of the national industry, and fix the duties to be levied upon their exportation.

The provisions thus made must be presented in the form of a bill to the legislative bodies, before the end of their session if they are assembled, or at the next session if they have adjourned.

In derogation of these rules it is provided that the duties established upon sugars from French colonies or possessions cannot be modified except by law; but an extra duty (*sur-taxe*) on foreign sugars and the classification of the inferior grades of these sugars may be modified by simple decree.

The duties upon cereals or other alimentary produce, also, cannot be altered except by law. The cereals or other alimentary produce referred to are wheat, spelt and masilin, rye, maize, barley, buckwheat, oats (grain and flour), rice and paddy, bran of all sorts of grain, bread and sea-biscuit, oatmeal, pearl or hulled grain, semoule, feculæ, sago and salex, potatoes, dry vegelables, chestnuts, alpia and millet, fodder and vetch.

The temporary admission of foreign products imported into France, to be manufactured or completed there, may be authorized, and in case of abuse may be in like manner revoked by decree, provided that a bond

shall be given for their re-exportation or for their return to the government bonded warehouses, after an interval not exceeding six months if the same should be required. Decrees may likewise designate the customs offices which will be open to the transit of certain classes of goods imported or exported, modify the rates of tare, the methods for gauging, the regulations for customs declarations, for packing goods, &c. Such decrees need not be submitted to the legislative body for its sanction; but no local authority and no tribunal has the power of increasing or reducing the rates of duty prescribed by the tariff.

GEORGE WALKER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Paris, France, September 14, 1881.

CUSTOMS TARIFFS OF FRANCE.

Comparative statement of the old, the conventional, and the new tariff of France, in respect to articles which were prohibited or subjected to prohibitory duties in the old tariff.

1. The first column shows the duties formerly imposed upon merchandise imported from countries having no treaties of commerce or convention with France, including the additional duty of 4 per cent. fixed by the law of December 30, 1873.
2. The second column shows the duties which were and which will be levied upon merchandise imported from countries having treaties or conventions of commerce with France, till the expiration of these treaties or conventions of commerce.
3. The third column shows the rates of duty fixed by the new general tariff promulgated on the 8th of May, 1881.
The unit of duty is the quintal or 100 kilograms, unless some other unit (hectoliter, to the piece, per thousand, ad valorem, &c.), should be specified, &c.
The numbers at the left of the page refer to the number of articles in the new general tariff.

MONEYS, WEIGHTS, AND MEASURES.

1 franc = 100 centimes = 19.3 American cents.
1 meter = 3.28 feet; 1 decimeter = 3.937 inches; 1 centimeter = 0.3937 inches; 1 millimeter = 0.0394 inches.
1 hectoliter, liquid capacity, = 26,417 gallons; 1 hectoliter, dry capacity, = 2.84 bushels.
1 kilogram = 2.2046 pounds; 100 kilograms = 220.46 pounds.
1 ton = 2,204.6 pounds.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.*	Conventional tariff.	New general tariff.
	ANIMAL PRODUCE.			
22	Wool, all kinds:	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
	Combed or carded	87.36	25.00	Free.
	Dyed	124.80	25.00	Free.
25	Feathers for bed (down and other)	52.00	3.50	20.00
35	Cheese:			
	Soft	7.49	3.00	6.00
	Hard	18.73	4.00	8.00
46	Fish, preserved in oil, pickled or otherwise prepared	31.20 and 49.92	10.00	10.00
51	Whale oil and spermaceti:			
	Pressed	20.80	20.80	10.00
	Refined	52.00	52.00	15.00
58	Sponges, undressed	52.00	50.00	35.00
63	Imitation of ivory and of tortoise shell	Prohibited	5 per cent. ad valorem	75.00
	FRUITS.			
79	Lemons and oranges, and their varieties	12.48	2.00	4.50
80	Figs	19.97	0.80	6.00
	Fruits, dried (other than grapes); almonds, walnuts, filberts, hazel-nuts, figs, carobs.	19.97	8.80	8.00
	Fruits, preserved in sugar or honey	32.76	22.00	52.50

*Including the additional duty of 4 per cent. fixed by the law of December, 30, 1873.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	COLONIAL PRODUCE.			
86	Sugar:	*Per* 100 *kilos.*	*Per* 100 *kilos.*	*Per* 100 *kilos.*
	Refined, other than candies	Prohibited	*48, 00	*52. 50
	Refined candies	....do	*51. 00	*56. 50
	Powdered, the estimated produce of which is, when refined, more than 98 per cent.	....do	*48. 00	*52. 50
88	Sugared biscuits	31. 50	*24. 00	*26. 25
91	Chocolate	166. 00	*81. 50	*91. 50
91	Cocoa:			
	Ground or prepared	166. 40	*121. 32	*135. 00
	Butter of	166. 40	*121. 32	*135. 00
100	Tobacco, leaves or stalks:			
	Imported for the account of the government	Free	Free	Free.
	Imported for the account of private parties	Prohibited	Prohibited	Prohibited.
	Tobacco, manufactured:			
	Imported for the account of the government	Free	Free	Free.
	Imported for the use of private parties under special authorization from the tobacco administration. (This authorization is limited to 10 kilograms per annum for any one person.)			
	Cigars and cigarettes	†3, 600. 00	†3, 600. 00	3, 600. 00
	Snuff and chewing tobacco	†1, 500. 00	†1, 500. 00	1, 500. 00
	Turkish smoking tobacco	†2, 500. 00	†2, 500. 00	2, 500. 00
	Smoking tobacco from any other country	†1, 500. 00	†1, 500. 00	1, 500. 00
	Tobacco juice (Praiss)	1. 25	1. 25	Prohibited.
	Tobacco, manufactured, not otherwise specified	Prohibited	Prohibited	Prohibited.
102	Oils, fixed, aromatized	124. 80	124. 80	80. 00
103	Oils, volatile:			
	Of rose	4, 992. 00	4, 992. 00	4, 000. 00
	Of oranges, lemons, and their varieties	499. 20	100. 00	150. 00
111	Manna	99. 84	8. 00	8. 00
113	Opium	249. 60	249. 60	10. 00
114	Licorice, juice	59, 90	4. 00	10. 00

	WOOD.			
118	Wood, building, sawed:			
	80 millimeters or less in thickness	0.06¼ per 100 meters	Free	Free.
	More than 80 millimeters in thickness	Free	do	Do.
119	Wood, common:			
	Masts, spars, blocks, gaffs, handles of forks, and of tar brushes	Free	do	Free.
	Oars, not finished	2.50	do	Do.
	Oars, finished	6.24	do	Do.
120	Staves	0.12½ per 1,000	do	Do.
122	Hoop-wood	0.12½ per 1,000	do	Do.
121	Split-wood	0.12½ per 1,000	0.10	0.10
148	Hops	56.14	12.50	15.00
	MARBLES, STONES, EARTHS, AND COMBUSTIBLE MINERAL SUBSTANCES.			
158	Marble:			
	White statuary, rough, squared, or sawed only	1.04 and 1.56	Free	Free.
	Other, rough or squared	1.04	do	Do.
	Other, of 16 centimeters or above in thickness, sawed	1.04	do	Do.
	Other, sawed, of less than 16 centimeters in thickness	1.56	1.50	2.50
158	Marble, sculptured, polished, or otherwise worked:			
	Sculptured, modern statuary	49.92	Free	10.00
	Sculptured clocks, cups, inkstands	49.92	1.50	15.00
	Sculptured playing marbles	18.72	18.72	15.00
	Sculptured, other	49.92	1.50	6.00
163	Rock crystal, worked	Prohibited	Free	Free.
164	Stones, worked, including slate-stones and stones for building:			
	Cut or sawed	18.72 per cent. ad valorem	Free	Free.
	Sculptured or polished: lithographic stones with drawings, engravings, or writing:	18.72 per cent. ad valorem	do	Do
	Sculptured or polished: modern statuary	18.72 per cent. ad valorem	Free	10.00
	" " playing marbles	12.48	12.48	15.00
	" " other	18.72 per cent. ad valorem	0.50	3.00
	Slates, framed or not framed, used especially for writing or for drawing	10.40 per 100 slates	3.75 or 5 per cent. ad valorem	3.75
167	Slates for building:			
	Rough	Free	Free	Free.
	Flag or table	10.40	do	Do.
167	Slates for roofing	4.16 per 1,000 slates	4.00 per 1,000 slates	4.00 per 1,000 slates.
168	Bricks and tiles for paving and roofing	4.99, 12.48, and 31.20 per thousand.	Free	1.00 per 1,000.
	METALS.			
187	Cast iron:			
	Rough, in masses weighing 15 kilograms or more	4.99	2.00	2.00
	Refined, in masses weighing 15 kilograms or more	8.74	2.75	2.00
	Other	Prohibited	2.75	2.00
188	Iron:			
	In masses or prisms containing slags (at least 6 per cent.)	do	4.50	4.50
189	Drawn, in bars, angle and T rails, of every dimension	12.48 and 17.47	6.00	6.00
	(Pig iron in bars, containing 6 per cent. or more of slags, shall pay the same duty as imported upon prisms still containing slags.)			

*Law of July 19, 1880. †Law of June 18, 1878.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	METALS—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
190	Band and hoop iron:			
	Of more than 1 millimeter in thickness	12.48	6.00	6.00
	Of 1 millimeter or less in thickness	17.47	7.50	7.50
191	Iron, called "machine, for manufacturing wires"	12.48 or 17.47	6.00	6.00
192	Sheet-iron, rolled or hammered, smooth, of more than 1 millimeter in thickness:			
	Not cut	24.96	7.50	7.50
	Cut, in whatever manner	24.96	8.25	8.00
	Sheet-iron, thin and black iron plates, smooth, of 1 millimeter or less in diameter:			
	Not cut	24.96	10.00	10.00
	Cut, in whatever manner	24.96	11.00	11.00
193	Tin plates, galvanized or coated with copper, zinc, or lead	49.92	13.00	13.00
194	Iron wire, coated or not, with tin, copper, or lead:			
	Not more than $\frac{4}{10}$ of millimeter in diameter	37.44	10.00	10.00
	Over $\frac{4}{10}$ of millimeter in diameter	37.44	6.00	6.00
195	Steel in bars:			
	Bails	37.44	9.00	6.00
	Other, all kinds, and hoop and band steel	37.44	9.00	9.00
	Steel, brown, in sheets or plates, rolled, when heated, of more than $\frac{1}{2}$ millimeter in thickness:			
	Not cut	62.40	11.25	9.00
	Cut, in whatever manner	62.40	11.25	9.90
	Of $\frac{1}{2}$ millimeter or less in thickness:			
	Not cut	93.60 and 137.28	15.00	15.00
	Cut in whatever manner	do	15.00	16.50
196	Steel, white, in sheets or plates, rolled when cold, of whatever thickness:			
	Not cut	93.60	15.00	15.00
	Cut in whatever manner	137.28 (A)	15.00	16.50
197	Steel wire for chords of instruments	87.36	20.00	20.00
199	Old and scrap iron	9.98	2.75	2.00
	Old and scrap cast iron	4.99	2.00	2.00
200	Iron dross and slag	1.04	Free	Free.

201	**Copper, pure or alloyed with zinc or tin:**			
	Rolled or hammered, in bars or plates	15. 60	10. 00	10. 00
	Wires of whatever size, polished or not, but neither gilt nor silvered.	104 and 124. 80	10. 00	10. 00
	Wires, polished (other than for chords of instruments)	Prohibited	10. 00	10. 00
	Copper, gilt or silvered, in masses or ingots, hammered, drawn, or rolled, spun with thread or silk.	104. 00	100. 00	100. 00
202	Lead, alloyed with antimony, in masses	32. 45	3. 00	3. 00
	Lead, hammered or rolled	29. 95	3. 00	3. 00
203	Tin, alloyed with antimony (Britannia metal) in blocks	32. 45 (B)	5. 00	5. 00
	Tin, pure or alloyed, hammered or rolled	74. 88	6. 00	6. 00
204	Zinc, rolled	62. 40	4. 00	4. 00
205	Nickel, pure or alloyed with other metals, hammered, rolled, or drawn	124. 80	10. 00	10. 00
306	Mercury, native	1. 25	Free	Free.
207	Antimony, sulphuret of, or smelted	1. 25	do	Do.
	Antimony, metallic, or regulus of	32. 45	6. 00	6. 00
209	Cadmium, crude	2. 50	Free	Free.
212	Cobalt, in mass or in powder	37. 44, 249. 60, and 374. 40	do	Do.
	CHEMICALS.			
214	Bromine and bromide of potassium	49. 92	Free	100. 00
215	Iodine, crude or refined	624. 00	do	400. 00
216	Iodide of potassium	624. 00	do	350. 00
217	**Phosphorus:**			
	White	Prohibited	40. 00	50. 00
	Red	do	10 per cent. ad valorem	149. 00
218	**Acids:**			
	Citric (lemon juice, natural or concentrated, up to 10 degrees, inclusively).	1. 25	Free	Free.
	Citric, from 10 to 35 degrees, inclusive	1. 25	do	6. 00
	Citric, over 35 degrees	187. 20	do	15. 00
	Citric, crystallized	187. 20	do	50. 00
	Gallic, crystalized	Prohibited	do	93. 00
	Nitric	113. 07	do	2. 50
	Oxalic	87. 36	10. 00	12. 50
	Phosphoric	51. 17	5 per cent. ad valorem	20. 00
	Stearic	5. 20 per cent. ad valorem	do	10. 00
	Sulphuric	51. 17	Free	Free.
	Tartaric	87. 36	do	10. 00
223	Soda of varec (sea wrack)	33. 07 (A)	0. 15 (A)	0. 19 (A)
224	Soda, caustic	Prohibited	6. 40 (A)	3. 00 (A)
225	**Soda, natural or artificial (carbonate of soda): (A)**			
	Crude, having at least 30° in strength	33. 07 (A)	1. 90	2. 30
	Crude, having less than 30° in strength		5. 85	7. 25
	Refined (salts of soda), having at least 60° in strength		4. 10	5. 00
	Refined (salts of soda), having less than 60° in strength		14. 00	17. 50
	Refined, crystalized (soda crystals)	23. 71	1. 90	2. 30

(A) The duty fixed upon sheet-steel, blued or polished, by the old general tariff was 624 francs per 100 kilograms.
(B) That duty is applied only when proportions of antimony exceed 10 per cent.
(A) Including the tax of inspectors of manufactures of soda.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	CHEMICALS—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
226	Natron	3.12	1.90	2.30
227	Bycarbonate of soda	Prohibited	4.20 (A)	5.20 (A)
228	Salts of soda, not denominated	do	3.50	4.25
229½	Salts, ammonical:			
	Hydrochlorate (sal ammoniac), crude	62.40	5 per cent. plus 3 francs per 100 kilograms.	8.00
	Hydrochlorate (sal ammoniac), refined (A)	124.80	5 per cent. plus 3 francs per 100 kilograms.	12.00
	Other, crude	62.40	5 per cent. ad valorem	3.00
	Other, refined	124.80	do	7.75
231	Salts of silver	Prohibited	do	930.00
232	Salts of tin	do	5 per cent. ad valorem plus 0.30 per 100 kilograms.	10.00
233	Acetate:			
	Of copper, crude	16.22 and 38.69	5 per cent. ad valorem	10.00
	Of copper, refined, in powder	51.17	do	14.50
	Of copper, crystals	51.17	do	21.00
	Of iron, concentrated	49.92	do	10.00
	Of lead	87.36	do	5.50
	Of potash	87.36	do	22.00
	Of soda, anhydrous	87.36	4.00	5.00
	Of soda, crystalized or hydrated	87.36	3.80	4.75
234	Alcohol:			
	Amylic	93.60	5 per cent. ad valorem	6.25
	Methylic	2.08 per hectoliter (B)	do	2.25
235	Aluminate of soda	Prohibited	10 per cent. ad valorem plus 0.70 100 kilograms.	13.50
236	Alum of ammoniac or of potash	do	5 per cent. ad valorem	1.50
	Sulphate of alumina	31.20	do	1.50
237	Ammoniac (volotile alkali)	Prohibited	do	3.00
238	Arseniate of potash	87.36	do	8.75
	Arseniate of soda	Prohibited	3.50	4.25
239	Borax:			
	Artificial	52.00	Free	8.75
	Half refined or refined	67.60 and 224.64	5 per cent. ad valorem	10.00

240	Carbonate of magnesia	240.60	Free	6.25
242	Chlorate of potash	Prohibited	32.35 (A)	32.00 (A)
	Chlorate of soda, baryte and others	do	5 per cent. ad valorem	32.00
243	Chloride of aluminium	do	10 per cent. ad valorem	200.00
	Chloride, double, of aluminium and sodium	do	5 per cent. ad valorem	18.50
	Chloride of lime	do	3.55 (A)	4.50 (A)
	Chloride of magnesium	do	0.40 (A)	0.50 (A)
244	Chromates of potash	187.20	10 per cent. ad valorem	10.00
	Chromates of lead	93.60	do	16.00
245	Glycerine:			
	For manufacturing purposes, crude	65.52	5 per cent. ad valorem	4.75
	Refined	65.52	do	7.50
247	Lactate of iron	Prohibited	do	43.00
248	Magnesia, calcined	do	do	18.50
250	Oxalate of potash	87.36	10.00	12.50
251	Silicate of soda:			
	Anhydrous	Prohibited	4.20 (A)	4.25 (A)
	Crystalized	do	3.85 (A)	3.75 (A)
	Hydrated	do	3.85 (A)	2.10 (A)
252	Sulphate of copper	38.69	5 per cent. ad valorem	3.00
	Sulphate of iron	7.49	do	0.65
	Sulphate, double, of iron and copper	23.09	do	0.50
	Sulphate of magnesia	87.36	Free	Free.
	Sulphate of soda, *pure, anhydrous:* (A)			
	Containing in native state 25 per cent. or less of salt	1.87	1.80	2.20
	Containing more than 25 per cent. of salt	7.49	7.20	9.00
	Sulphate of soda, pure crystalized or hydrated (Glauber's salts)	1.30	0.95	1.20
	Sulphate of soda, *impure anhydrous:*			
	Containing in native state 25 per cent. or less of salt	1.82	1.75	2.20
	Containing more than 25 per cent. of salt	6.86	6.60	8.25
	Sulphate of soda, impure, crystalized or hydrated (Glauber's salts)	1.25	0.90	1.10
	Sulphate of zinc	38.69	5 per cent. ad valorem	2.20
253	Sulphite of soda (A)	Prohibited	1.80	2.20
254	Hyposulphite of soda	do	3.80	4.75
255	Sulphide of arsenic	9.98	Free	5 per cent. ad valorem.
	Sulphide of mercury, artificial, in crystals	187.20	5 per cent. ad valorem	31.00
	Sulphide of mercury, artificial, pulverized (vermilion)	249.60	do	62.00
256	Prussiate of potash:			
	Yellow	262.08	20.00	20.00
	Red	262.08	30.00	30.00
257	Chemical products derived from coal tar:			
	Essence of coal, benzine, and other light oils	16.22	5 per cent. ad valorem	Free.
	Heavy oils	Free	Free	Do.
	Nitrobenzine and aniline, pure, or mixed with toluidine	Prohibited	5 per cent. ad valorem	Do.
	Phenol, or carbolic acid	do	do	Do.
	Naphthaline	do	do	Do.
	Anthracene	do	do	Do.
	Other products not denominated	do	do	Do.

(A) Including the tax of inspection of manufactures of soda.
(B) Not including internal revenue tax.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	CHEMICALS—Continued.			
	Chemicals not denominated (including the extracts of Peruvian bark and phosphorus moss) (B).	*Per 100 kilos.* Prohibited (B)	*Per 100 kilos.* 5 per cent. ad valorem	*Per 100 kilos.* 5 per cent. ad valorem, it being optional to convert it into specific duty.
	Dyes prepared.			
267	Orchill, prepared:			
	Moist (in paste)	124. 80	5 per cent. ad valorem	5. 00
	Dried (cudbear)	249. 60	do	10. 00
269	Extracts of dye woods and of other species of dyes:			
	Garancine and other extracts of madder	Prohibited	Free	Free.
	Other, black and violet	do	20. 00	20. 00
	Other, red and yellow	do	30. 00	30. 00
	Colors.			
273	Ultramarine:			
	Natural	312. 00	15. 00	20. 00
	Artificial	312. 00	15. 65	20. 00
276	Varnish:			
	Alcohol (*b*)	51. 17 (*a*) and 102. 34	10 per cent. ad valorem	30. 00
	Turpentine	do	do	20. 00
	Oil, or turpentine and oil mixed	do	do	40. 00
277	Ink:			
	For drawing, in cakes	124. 80	20. 00	20. 00
	For writing or printing, liquid	74. 88	20. 00	20. 00
278	Black:			
	Ivory	77. 38	77. 38	5. 00
	For plate printing	8. 74	8. 74	8. 00
279	Pencils;			
	Common, stone	12. 48	1. 00	1. 00
	Common lead, in white wood, varnished or not varnished, large pencils for carpenters.	124. 80 (*c*)	10 per cent. ad valorem	35. 00
	Fine, in colored wood or cedar, or filled with colored lead	249. 60	do	140. 00
	For memorandum books or port folios, with or without bone heads	249. 60	do	240. 00

	Various compositions.			
288	Perfumaries:			
	Soaps	204.67	6.00	12.00
	Other alcoholic (*b*)	36.40	15.00 per hectoliter of pure alcohol.	37.50 per hectoliter of pure alcohol.
	Other not alcoholic	From 122.30 to 1123.20	10.00	12.00
289	Soaps, other than toilet	Prohibited	6.00	6.00
291	Spices, prepared:			
	Mustard	34.20	5.00	5.00
	Sauces and others	249.60	25.00 (*d*)	25.00
292	Medicines, prepared, not denominated:			
	Mentioned in the official pharmacopœia	Prohibited (*e*)	Prohibited (*e*)	(*f*)
	Not mentioned in the official pharmacopœia	do	do	Prohibited.
293	Waters, distilled:			
	Alcoholic	36.40 (*d*)	36.40 (*d*)	30.00 per hectoliter of pure alcohol.
	Not alcoholic	124.80	124.80	10.00
294	Chicory, burnt or ground	57.20	5.00	5.00
295	Starch	26.21	1.50	6.00
297	Sealing wax	124.80	30.00	30.00
298	Candles (spermaceti, paraffine, and wax) of all kinds	10.40 per cent. ad valorem (*b*)	10 per cent. ad valorem (*b*)	19.00 (*b*)
299	Wax and stearic acid, manufactured, other than candles	4.16 per 100 kilos and 5.20 per cent. ad valorem.	4.00	19.00
300	Candles:			
	With wicks, woven, braided or twisted, chemically prepared	10.40 per cent. ad valorem	10 per cent. ad valorem	12.00 (*a*)
	Other	5.20 per cent. ad valorem	5 per cent. ad valorem	6.00
305	Sugar of milk	65.52	Free	Free.
306	Blacking	153.50	4.00	4.00
	BEVERAGES.			
307	Wines:	*Per hectoliter.*	*Per hectoliter.*	*Per hectoliter.*
	Ordinary (*g*)	5.20	3.50	4.50
	Liqueurs	20.80	3.50	4.50
311	Mead (*g*)	31.20	31.20	20.00
312	Orange juice	31.20	Free	4.50
309	Cider (*g*)	2.50 (*g*)	0.25 (*g*)	1.00 (*g*)
310	Beer	7.49	5.75	7.75
313	Alcohol and brandy (*g*)	31.20 per hectoliter of pure alcohol.	15.00 per hectoliter of pure alcohol.	30.00 per hectoliter of pure alcohol.
313	Liquors (*a*)	36.40 per hectoliter of liquid	15.00 per hectoliter of liquid	40.00 per hectoliter of liquid.

(B) Extracts of quinquina (Peruvian bark) were taxed at 2.08 francs per 100 kilograms in the old general tariff, and at 2 francs in the conventional tariff. Phosphorus moss was considered as medicine, prepared, not denominated, and prohibited.

(*a*) The duty of $51.17 per 100 kilos is special to red varnish.

(*b*) The duties specified in the tariffs do not include the internal-revenue taxes.

(*c*) In the old general tariff, the duty on pencils in wood of all kinds, varnished, was 249.60 per 100 kilos.

(*d*) The duty of 25 francs is especially applied to sauces; other prepared spices pay the general duty of 249.60.

(*e*) Exeept medicines, prepared, the admission of which was authorized by the "High School of Pharmacy" and on which the duty was 24.96 per cent. ad valorem.

(*f*) These medicines shall pay a specific duty equivalent to 10 per cent. of their value, which will be determined by the "High School of Pharmacy," and, besides, the additional duties which may be levied upon medicines prepared with substances subject to customs or internal-revenue taxes.

(*g*) The duties specified in the tariff do not include internal taxes.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	EARTHEN, STONE, AND GLASS WARE.			
317 to 321	Earthen ware:	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
	Common, not ornamented	7.49	Free	Free.
	Common, ornamented	7.49	5.00	5.00
322	Utensils used in the manufacture of chemical products	12.48	Free	Free.
323	Stoneware:			
	Common	18.72	4.00	4.00
	Fine	Prohibited	15 per cent. ad valorem	8.00
324	Ceramic tiles, of different colors	do	do	3.00
	Ceramic tiles, of one color	do	do	1.00
325	Crockeryware, stanniferous, molded:			
	Not retouched	61.15	Free	Free.
326	Retouched	61.15	15 per cent. ad valorem	15.00
327	Porcelains	204.67 and 408.10	10 per cent. ad valorem	12.50, 15.00, and 25.00
328	Glass plates:			
	Less than half a meter square	20.59 per square meter	20.00 per 100 kilos or 10 per cent. ad valorem.	25.00 per 100 kilos.
	From half a meter square to a meter square, exclusively, rough:			
	Unpolished	From 18.72 to 30.85 per square meter.	10 per cent. ad valorem	1.20 per square meter.
	Polished or silvered	do	do	3.75 per square meter.
	A meter square or more, unpolished	From 23.30 to 32.37 per square meter.	1.50 per square meter	1.90 per square meter.
	A meter square or more, polished or silvered	do	4.00 per square meter	5.00 per square meter.
329	Goblets of glass or crystal:			
	Plain molded and pressed, white or one color, and tinted in the mass.	Prohibited	10 per cent. ad valorem	4.25
	Cut and graved other than to efface the traces of the pontee	do	do	12.50
	Decorated with gold or colors	do	do	31.00
330	Window glass:			
	Common	do	3.50	4.25
	Colored, engraved or polished	do	10 per cent. ad valorem	18.50
331	Glass, watch, spectacles, optic:			
	Unpolished, including glass for toy watches	42.48	do	15.00
	Cut and polished	249.60	do	149.00
332	Glass and enamel, in mass or in tubs	374.40 and 249.60	3.75 per 100 kilos or 10 per cent. ad valorem.	4.75

	Glass, in beads, pierced or cut, or in crystals for jewelry, trinkets colored or not, spun glass, balls, and coral imitation.	124.80 and 748.80	20.00 per 100 kilos or 10 per cent. ad valorem.	25.00
333	Bottles, empty	Prohibited	1.80	3.00
335	Manufactures of glass, not denominated	do	10 per cent. ad valorem	18.50
	YARNS AND THREADS.			
	Yarn of flax or hemp.			
337	Yarn, single, unbleached, measuring to the kilogram—	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
	2,000 meters or less	47.42	15.00	16.00
	Above 2,000 meters and not above 5,000 meters	47.42	15.00	18.00
	5,000 meters and not above 6,000 meters	47.42	15.00	28.00
	6,000 meters and not above 10,000 meters	59.90	20.00	28.00
	10,000 meters and not above 12,000 meters	59.90	20.00	38.00
	12,000 meters and not above 20,000 meters	99.94	30.00	38.00
	20,000 meters and not above 24,000 meters	99.94	30.00	40.00
	24,000 meters and not above 30,000 meters	156.94	36.00	40.00
	30,000 meters and not above 36,000 meters	156.94	36.00	50.00
	36,000 meters and not above 40,000 meters	205.92	60.00	50.00
	40,000 meters and not above 45,000 meters	205.92	60.00	70.00
	45,000 meters and not above 60,000 meters	205.92	60.00	70.00
	60,000 meters and not above 80,000 meters	205.92	60.00	99.00
	80,000 meters and not above 100,000 meters	205.92	100.00	149.00
	100,000 meters or more	205.92	100.00	200.00
	Yarn, single, bleached, or colored, and yarns twisted, unbleached	Same duty as yarn, single, unbleached, with the addition of 30 per cent.	Same duty as yarn, single, unbleached, with the addition of 30 per cent.	Same duty as yarn, single, unbleached, with the addition of 30 per cent.
	Yarn, twisted, bleached or colored	Same duty as yarn, single, bleached or colored, with the addition of 30 per cent.	Same duty as yarn, single, bleached or colored, with the addition of 30 per cent.	Same duty as yarn, single, bleached or colored, with the addition of 30 per cent.
	Yarn, of flax or hemp mixed, the flax or hemp predominating in weight.	Same duty as flax or hemp yarn, pure, according to class.	Same duty as flax or hemp yarn, pure, according to class.	Same duty as flax or hemp yarn, pure, according to class.
	Yarn of jute, pure:			
338	Yarn, unbleached measuring to the kilogram—			
	Less than 1,400 meters	74.88	5.00	6.25
	From 1,400 meters to 3,699 meters, inclusive	74.88	6.00	7.50
	3,700 meters to 4,199 meters, inclusive	74.88	7.00	8.75
	4,200 meters to 6,000 meters, inclusive	74.88	10.00	12.50
	More than 6,000 meters	74.88	Same duty as flax or hemp yarn.	Same duty as flax or hemp yarn.
	Yarns, bleached or colored, measuring to the kilogram—			
	Less than 1,400 meters	101.09 and 99.84 (A)	7.00	8.75
	From 1,400 meters to 3,699 meters, inclusive	do	9.00	11.00
	3,700 meters to 4,199 meters, inclusive	do	10.00	12.50
	4,199 meters to 6,000 meters, inclusive	do	14.00	17.50
	More than 6,000 meters	do	Same duty as flax or hemp yarn.	Same duty as flax or hemp yarn.
	Yarn, jute mixed, the jute predominating in weight	Same duty as yarn of jute, pure.	Same duty as yarn of jute, pure.	Same duty as yarn of jute, pure.

(A) The duty of 101.09 francs is applicable to yarn of jute bleached, and the duty of 99.84 francs to yarns of jute colored.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	YARNS AND THREADS—Continued.			
	Cottons.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
131	Cotton, in sheets, carded or gummed, wadding	124.60	10.00	10.00
	Cotton yarn:			
340	Yarn, single, unbleached, measuring to the ½ kilogram—			
	20,500 meters or less	Prohibited (B)	15.00	18.50
	Above 20,500 meters and not above 30,500	do	20.00	25.00
	30,500 meters and not above 40,500	do	30.00	37.00
	40,500 meters and not above 50,500	do	40.00	50.00
	50,500 meters and not above 60,500	do	50.00	62.00
	60,500 meters and not above 70,500	do	60.00	74.00
	70,500 meters and not above 80,500	do	70.00	87.00
	80,500 meters and not above 90,500	do	90.00	112.00
	90,500 meters and not above 100,500	do	100.00	124.00
	100,500 meters and not above 110,500	do	120.00	149.00
	110,500 meters and not above 120,500	do	140.00	174.00
	120,550 meters and not above 130,500	do	160.00	198.00
	130,500 meters and not above 140,500	do	200.00	248.00
	140,500 meters and not above 170,500	do	250.00	310.00
	170,500 and over	do	300.00	372.00
	Yarn, single bleached	Prohibited	Same duty as yarn, single, unbleached, with the addition of 15 per cent.	Same duty as yarn, single, unbleached, with the addition of 15 per cent.
340	Single, colored or clouded	Prohibited	Same duty as yarn, single, unbleached, with the addition of 25 francs per 100 kilos.	Same duty as yarns, single, unbleached, with the addition of 30 francs per 100 kilos. when dyed in ordinary colors, and 60 francs per 100 kilos. when dyed in Turkey red.
341	Twisted, of 2 or 3 threads, in small, ordinary skeins:			
	Unbleached	do	Same duty as single yarns,	with the addition of 30 per
	Bleached	do	Same duty as yarn twisted, of 30 per cent.	unbleached, with the addition

	Dyed in ordinary colors or clouded	do	25.00 (A) per 100 kilos., in addition to the duty levied on twisted yarn, unbleached.	30.00 per 100 kilos., in addition to the duty levied on twisted yarn, unbleached.
	Dyed in Turkey red	do	25.00 (A) per 100 kilos., in addition to the duty on yarn, twisted, unbleached.	60.00 per 100 kilos., in addition to the duty on yarn, twisted, unbleached.
	Twisted, in small, ordinary skeins, of 4 or more threads, unbleached, bleached, or colored:			
	Single twisted	do	0.06 per 1,000 meters.	0.015 per 1,000 meters of single thread.
	Double twisted and cable	do	0.12 per 1,000 meters.	0.02 per 1,000 meters of single thread.
	Twisted, manufactured, *i. e.*, in balls, bobbins, small skeins, or other forms of haberdashery, unbleached, bleached, or colored:			
	Single twisted	do	Same duty as yarn twisted, of 2 threads or more, in ordinary skeins.	0.02 per 1,000 meters of single thread.
	Double twisted and cable	do	Same duty as yarn twisted, of 2 threads or more, in ordinary skeins.	0.025 per 1,000 meters of single thread.
342	Cotton warps:			
	Unbleached	do	Same duty as unbleached yarn, with the addition of 30 per cent.	Same duty as the component thread, with the addition of 30 per cent.
	Bleached	do	Same duty as unbleached cotton warp, with the addition of 15 per cent.	Same duty as unbleached cotton warp, with the addition of 15 per cent.
	Colored	do	Same duty as unbleached yarn, with the addition of 25 francs per 100 kilos.	Same duty as unbleached yarn, with the addition of 30 francs per 100 kilos. when dyed in ordinary colors, of 60 francs per 100 kilos. when dyed in Turkey red.
343	Cotton yarn, mixed, the cotton predominating in weight	do	Same duty as cotton yarn, pure.	Same duty as cotton yarn, pure.
	Woolen yarn, pure.			
344	Single thread, bleached or unbleached, combed, measuring to the kilogram:			
	10,000 meters or less	do	10.00	31.00
	More than 10,000 meters and not more than 15,000	do	15.00	31.00
	15,000 meters and not more than 20,000	do	20.00	31.00
	20,000 meters and not more than 30,500	do	25.00	31.00
	30,500 meters and not more than 40,500	do	35.00	43.00
	40,500 meters and not more than 50,500	do	45.00	56.00
	50,500 meters and not more than 60,500	do	55.00	68.00
	60,500 meters and not more than 70,500	do	65.00	81.00
	70,500 meters and not more than 80,500	do	75.00	93.00
	80,500 meters and not more than 90,500	do	85.00	105.00
	90,500 meters and not more than 100,500	do	95.00	118.00
	100,500 meters	do	100.00	124.00

(B) With the exception of No. 148 and above paying 998.41 francs per 100 kilos.

(A) These duties are especially applicable to yarn twisted, of 2 threads; yarns twisted, of three threads, pay 0.06 franc or 0.12 franc per 1,000 meters, according as they have been submitted to a single torsion or to several torsions.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	YARNS AND THREADS—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
	Woolen yarn, pure—Continued.			
	Single thread, bleached or unbleached, carded, measuring to the kilogram:			
	10,000 meters or less	do	Same duty as yarn, single thread, bleached or unbleached, combed.	18.50
	More than 10,000 meters and not more than 15,000	do		28.00
	15,000 meters and not more than 20,000	do		37.00
	20,000 meters and not more than 30,500	do		46.00
	30,500 meters	do		56.00
	Single thread, colored, combed, measuring to the kilogram:			
	30,500 meters or less	do	50.00	62.00
	More than 30,500 meters and not more than 40,500	do	60.00	74.00
	40,500 meters and not more than 50,500	do	70.00	87.00
	50,500 meters and not more than 60,500	do	80.00	99.00
	60,500 meters and not more than 70,500	do	90.00	112.00
	70,500 meters and not more than 80,500	do	100.00	124.00
	80,500 meters and not more than 90,500	do	110.00	138.00
	90,500 meters and not more than 100,500	do	120.00	149.00
	100,500 meters	do	125.00	155.00
	Single thread, colored, carded, measuring to the kilogram:			
	10,000 meters or less	do	Same duty as yarn, single thread, colored, combed.	50.00
	More than 10,000 meters and not more than 15,000	do		59.00
	15,000 meters and not more than 20,000	do		68.00
	20,000 meters and not more than 30,500	do		77.00
	30,500 meters	do		87.00
	Woolen yarn, pure, for weaving.			
345	Twisted, bleached or unbleached, combed, measuring in the kilogram and in single thread:			
	30,500 meters or less	do	32.50	40.00
	More than 30,500 meters and not more than 40,500	do	45.50	56.00
	40,500 meters and not more than 50,500	do	58.50	72.00
	50,500 meters and not more than 60,500	do	71.50	88.00

	60,500 meters and not more than 70,500	do	84.50	104.00
	70,500 meters and not more than 80,500	do	97.50	120.00
	80,500 meters and not more than 90,500	do	110.50	136.00
	90,500 meters and not more than 100,500	do	123.50	152.00
	100,500 meters	do	130.00	161.00
	Twisted, bleached or unbleached, carded, measuring in the kilogram and in single thread:			
	10,000 meters or less	do	Same duty as woolen yarn, pure, twisted, bleached, or unbleached, combed.	28.00
	More than 10,000 meters and not more than 15,000	do		37.00
	15,000 meters and not more than 20,000	do		46.00
	20,000 meters and not more than 30,500	do		58.00
	30,500 meters	do		65.00
345	Twisted, colored, combed, measuring in the kilogram and in single thread:			
	30,500 meters or less	prohibited	57.50	71.00
	30,500 meters and not more than 40,500	do	70.50	87.00
	More than 40,500 meters and not more than 50,500	do	83.50	99.00
	50,500 meters and not more than 60,500	do	96.50	112.00
	60,500 meters and not more than 70,500	do	109.50	124.00
	70,500 meters and not more than 80,500	do	122.50	138.00
	80,500 meters and not more than 90,500	do	135.50	152.00
	90,500 meters and not more than 100,500	do	148.50	166.00
	100,500 meters	do	155.00	174.00
	Twisted, colored, carded, measuring in the kilogram and in the single thread:			
	10,000 or less	do	Same duty as woolen yarn, pure, twisted, colored, combed.	59.00
	More than 10,000 and not more than 15,000	do		68.00
	15,000 and not more than 20,000	do		77.00
	20,000 and not more than 30,500	do		87.00
	30,500 meters	do		96.00
	Woolen yarn, pure, for tapestry work.			
346	Twisted, combed, bleached or unbleached, measuring in the kilogram and in single thread:			
	30,500 meters or less	do	50.00	46.00
	More than 30,500 meters and not more than 40,500	do	70.00	65.00
	40,500 meters and not more than 50,500	do	90.00	84.00
	50,500 meters and not more than 60,500	do	110.00	102.00
	60,500 meters and not more than 70,500	do	130.00	121.00
	70,500 meters and not more than 80,500	do	150.00	139.00
	80,500 meters and not more than 90,500	do	170.00	158.00
	90,500 meters and not more than 100,500	do	190.00	177.00
	100,500 meters	do	200.00	186.00

(a) All woolen yarns were prohibited in the old general tariff, with the exception of long twisted yarn, unbleached, combed, scoured, and singed, which paid a duty of 873.60 francs per 100 kilos.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	YARNS AND THREADS—Continued.			
	Woolen yarn, pure, for tapestry work—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
	Twisted, combed, colored; measuring in the kilogram and in single thread:			
	30,500 meters or less	prohibited	75.00	77.00
	More than 30,500 meters and not more than 40,500	do	95.00	96.00
	40,500 meters and not more than 50,500	do	115.00	115.00
	50,500 meters and not more than 60,500	do	135.00	133.00
	60,500 meters and not more than 70,500	do	155.00	152.00
	70,500 meters and not more than 80,500	do	175.00	170.00
	80,500 meters and not more than 90,500	do	195.00	189.00
	90,500 meters and not more than 100,500	do	215.00	208.00
	100,500 meters	do	225.00	217.00
347	Yarn, alpaca, lama, vicuna or camel's hair, pure or mixed with wool, whatever shall be the proportion of mixture, or mixed with other filaments, wool of alpaca, &c., predominating in weight.	do	Same duty as woolen yarn, pure,	.....
348	Yarns (mohair) made from the hair of goat, pure or mixed, the hair of the goat predominating in weight.	24.96	24.00	30.00
348½	Yarn, of other hair	prohibited	Free	Free.
	TISSUES.			
350	*Tissues of pure flax or hemp.*			
	Unbleached	74.88 to 582.82	28 to 300	28 to 460.
	Bleached, colored, or painted	112.32 to 1,019.62	38 to 400	Same duty as above, with the addition of 30 per cent.
351	Canvas for oil cloth	87.36 to 274.56	5 to 15	30.00
352	Linen damask for bedding and upholstery, unbleached	399.86 to 699.38	16 per cent. ad valorem	112.00
	Cream-colored, bleached, or mixed with white or colored thread	624.50 to 1,223.54	16 per cent. ad valorem	Same as above, with addition of 30 per cent.
353	Table linen damask:			
	Unbleached	399.86 to 699.38	16 per cent. ad valorem	93 to 530.
	Clouded, bleached, or mixed with white and colored threads	624.50 to 1,223.54	16 per cent. ad valorem	Same as above, with addition of 30 per cent.
354	Twills:			
	Unbleached	264.58 and 401.86	16 per cent. ad valorem	120.00

	Cream-colored, white or mixed with threads, unbleached, or threads bleached or colored.	454.27	16 per cent. ad valorem	Same as above, with addition of 30 per cent.
356	Hosiery	249.60	15 per cent. ad valorem	124.00
	Tissues of jute, pure.			
359	Unbleached	96.10 to 160.99	10 to 24	16 to 30.
360	Bleached or colored	133.44 to 242.00	15 to 35	18.50 to 43.
361	Carpets, sheared or unsheared	93.60	24.00	25.00
	Tissues of cotton.			
364	Tissues of cotton, pure, unbleached:			
	Weighing 11 kilos. or more to the 100 meters square, and containing in warp and filling, in the space of 5 millimeters square:			
	30 threads or less	prohibited	50.00 to 80.00 (*b*)	62 00
	31 threads or more	do	50.00 to 80.00 (*b*)	100.00
	Weighing 7 kilos. inclusive, and less than 11 kilos.:			
	35 threads or less	do	60.00	95.00
	36 threads to 43 threads	do	100.00	125.00
	44 threads or more	do	200.00	250.00
	Weighing 5 kilos. inclusive, and less than 7 kilos.:			
	27 threads or less	do	80.00	100.00
	28 threads to 35 threads	do	120 00	145.00
	36 threads to 43 threads	do	190.00	235.00
	44 threads or more	do	300.00	300.00
	Weighing 3 kilos. inclusive, and less than 5 kilos.:			
	27 threads or less	do	80.00	230.00
	28 threads to 35 threads	do	120.00	300.00
	36 threads to 43 threads	do	190.00	410.00
	44 threads or more	do	300.00	625.00
	Weighing less than 3 kilos	do	15 per cent. ad valorem	670.00
365	Tissues of cotton, pure, bleached:			
	Weighing more than 3 kilos	do	57.60 to 345 and	Same as unbleached, with addition of 15 per cent.
	Weighing less than 3 kilos	do	15 per cent. ad valorem	
366	Tissues of cotton, pure:			
	Dyed in Turkey red	do	75 00 to 325.00	60 per cent., in addition to duties on unbleached tissues.
	Dyed, other	do	and 15 per cent. ad valorem	30 per cent., in addition to duties on unbleached tissues.
367	Tissues of cotton, printed:			
	Other than upon Turkey red ground	do	15 per cent. ad valorem.	2.50 to 10, in addition to duties levied upon unbleached tissues, and according to the kind.
	Printed upon Turkey red ground	do	15 per cent. ad valorem.	Same as unbleached tissues, according to the kind augmented: 1st, of 60 francs per 100 kilos.; 2d, of the additional duty applied to other printed tissues.

(*b*) In the conventional tariff the duty of 50 francs is applicable to tissues containing less than 44 threads, and the duty of 80 francs to tissues containing more than 44 threads.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	TISSUES—Continued.			
	Tissues of cotton—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
368	Velvets, imitation of silk:			
	Unbleached	Prohibited	85.00	143.00
	Dyed or printed	do	110.00	174.00
369	Velvets, other (cords, moleskins, &c.):			
	Unbleached	do	60.00	100.00
	Dyed or printed	do	85.00	131.00
370	Tissues manufactured in all or in part, of colored threads	do	Same as colored tissues	Same as unbleached tissues, with the addition of 60 per cent.
371	Brilliants, raw, unbleached, or figured	do	15 per cent. ad valorem	Same as plain unbleached tissues with the addition of 10 per cent., according to the class.
372	Piqués, bed covering, quilted and reps:			
	Weighing more than 18 kilos. to the 100 meters square	do	15 per cent. ad valorem	125.00
	Weighing 18 kilos. or less	do	15 per cent. ad valorem	180 00
374	Dimity, table damasks and linen, unbleached	do	15 per cent. ad valorem	114.00
373	Tissues, figured, composed	do	15 per cent. ad valorem	240.00
375	Guipures, for trimming furniture, unbleached	6.24 per cent. ad valorem	5 per cent. ad valorem	185.00
	(The above articles, brilliants, piqués, &c., when dyed or bleached will pay the duty on unbleached articles, augmented of the duty levied upon bleached or dyed tissues.)			
376	Blankets	Prohibited	15 per cent. ad valorem	68.00
377	Hosiery:			
	Gloves	do	15 per cent. ad valorem	1,000.00
	Other, cut and seamless	do	15 per cent. ad valorem	125.00
	Other, finished	do	15 per cent. ad valorem	300.00
378	Trimmings	do	15 per cent. ad valorem	236.00
379	Ribbons:			
	Of pure cotton	do	15 per cent. ad valorem	124.00
	Mixed with wool, cotton predominating	do	15 per cent. ad valorem	150.00
380	Tulle	do	15 per cent. ad valorem	496.00 and 700.

381	Embroidery made by hand and gauze fancy figured	do	10 per cent. ad valorem	620.00
382	Laces and blonde laces, whether made by hand or machinery	6.24 per cent. ad valorem	5 per cent. ad valorem	495.00
383	Curtains, embroidered muslins, not framed:			
	Weighing less than 10 kilos. to the 100 meters square	Prohibited	15 per cent. ad valorem	300.00
	Weighing 10 kilos. or more; and curtains of embroidered muslin, framed, whatever be the weight to the 100 meters square, separate or in piece.	do	15 per cent. ad valorem	600.00
	Curtains, tulle applique, grenadine, and embroidered tulle	do	15 per cent. ad valorem	900.00
384	Muslin, figured or embroidered with crotchet, for upholstery or for garments, unbleached. (Muslin, bleached, embroidered or figured, will pay the same duty as unbleached muslin, augmented of 15 per cent.)	do	10 per cent. ad valorem	360.00
385	Embroideries made by hand or machinery	do	10 per cent. ad valorem	800.00
386	Wicks of lamps and wicks braided for candles	do	15 per cent. ad valorem	74.00
387	Oil cloth:			
	For packing	do	5. per 100 kilos	8.00
	For upholstery, hangings, and other uses	do	15. per 100 kilos	30.00
	Moleskin, imitation of leather	do	15. per 100 kilos	30.00
388	Tissues of cotton, mixed, cotton predominating:			
	Stuffs of silk and cotton	do	15 per cent. ad valorem	372.00
	Stuffs, other	do	15 per cent. ad valorem	124.00
	Trimmings and ribbons, silk and cotton	do	15 per cent. ad valorem	372.00
	Trimmings and ribbons, other	do	15 per cent. ad valorem	Same as tissues of pure cotton.
389	Heddles, twisted yarn, for weavers' looms, varnished or not	do	15 per cent. ad valorem	50.00
	Tissues of pure wool.			
	Woolen cloth, cassimeres, and other tissues fulled, and tissues sheared, not fulled.			
390	Stuffs for upholstery, weighing more than 400 grammes to the meter square.	do	10 per cent. ad valorem	124.00
391	Moire	do	10 per cent. ad valorem	75.00
392	Other stuffs:			
	Weighing 400 grammes or more to the meter square	do	10 per cent. ad valorem	211.00
	Weighing 401 to 550 grammes, inclusive	do	10 per cent. ad valorem	186.00
	Weighing more than 550 grammes	do	10 per cent. ad valorem	161.00
393	Carpets, Axminster:			
	Looped, uncut	312.00	10 per cent. ad valorem	74.00
	Velvet, finished	374.40	10 per cent. ad valorem	99.00
	Carpets:			
	Persian	624.00	10 per cent. ad valorem	186.00
	Jacquard, chenille, and others	274.40	10 per cent. ad valorem	124.00
394	Hosiery, pure wool and mixed wool:			
	Gloves and garments, not fitted	Prohibited	10 per cent. ad valorem	650.00
	Other, cut and seamless	do	10 per cent. ad valorem	150.00
	Other, fitted and finished	do	10 per cent. ad valorem	300.00
394½	Trimmings, ribbons	237.12 and 274.56	10 per cent. ad valorem	248.00
395	Tapestry	Prohibited	10 per cent. ad valorem	620.00
396	Shawls, broché or fancy figured, other than India cashmere	do	10 per cent. ad valorem	397.00
397	Laces	do	10 per cent. ad valorem	372.00
398	Velvets of wool for upholstery	do	10 per cent. ad valorem	223.00
399	Bolting cloth, seamless	249.60	10 per cent. ad valorem	198.00

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	TISSUES—Continued.			
	Tissues of pure wool—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
400	Blankets	249.00	10 per cent. ad valorem	87.00
401	List of slippers	Prohibited	10 per cent. ad valorem	87.00
402	List of cloth	do	Free	Free.
	Tissues of wool, mixed.			
403	Woolen cloth, cassimeres, and other tissues fulled, warp cotton; tissues sheared, not fulled, the wool predominating.	do	10 per cent. ad valorem	50 to 211 francs according to the weight to the meter square.
	Tissues, wool, warp, being silk waste, wool predominating	do	10 per cent. ad valorem	297.00
	Carpets:			
	Wool mixed with cotton	do	10 per cent. ad valorem	Same duty as tissues of pure wool.
	Wool mixed with other materials	374.40 and 624	10 per cent ad valorem	
	Other tissues, the wool predominating in weight	Prohibited	10 per cent. ad valorem	
404	Tissues, alpaca, lama, vicuna, sheep, yak, or of camel's hair, pure or mixed with other filaments, the wool of the alpaca, lama, vicuna, yak, or camels' hair predominating in weight.	Same as tissues of wool, according to the class.	Same duty as tissues of pure wool.	Same duty as tissues of pure wool.
405	Tissues of goats' hair, pure or mixed, the goats' hair predominating in weight:			
	Cashmere shawls, long, made by hand	5.20 per cent. ad valorem	5.20 per cent. ad valorem	30.00
	Cashmere shawls, square, made by hand	5.20 per cent. ad valorem.	5.20 per cent. ad valorem	20.00
	Scarfs, trimmings, fringes, &c., made by hand	5.20 per cent. ad valorem.	5.20 per cent. ad valorem	1,000.00
	Plain tissues, made by hand	Prohibited (*)	5.20 per cent. ad valorem	1,000.00
406	Other tissues of hair, pure or mixed with other filaments, the hair predominating in weight.	Prohibited	Prohibited	37.00
407	*Tissues of silk, pure.*			
	Scarfs or foulards, crape, hosiery, trimmings	288 to 1,747.20	Free	Free.
	Laces	18.72 per cent. ad valorem	do	Do.
	Tulle	Prohibited	do	Do.

	Tissues of silk waste.			
407	Tissues, hosiery and trimmings of silk waste, pure, unbleached, dyed or printed.	254.59 to 998.40 (a)	200.00	248.00
	Tissues of coarse silk waste for upholstery weighing more than 250 grams to the meter square.	do	200.00	136.00
	Tissues of silk or silk waste:			
	Mixed with linen, silk or waste silk predominating as weight	1,622.40 to 2,121.60	300.00	372.00
	Mixed with cotton, silk or waste silk predominating in weight	Prohibited		
	Mixed with other material, silk or waste silk predominating in weight.	Same as tissues of pure silk	300.00	
	Tissues, trimmings, and laces of silk, or of silk waste mixed with pure gold or silver.	1,248 to 2,496	1,200.00	1,488.00
	Tissues, trimmings, and laces of silk, or of silk waste mixed with impure or false gold or silver.	Prohibited (b)	350.00	434.00
	Ribbons of silk or of silk waste pure or mixed with other textile material, the silk or silk waste predominating in weight:			
	Velvets	998.40	500.00	620.00
	Other		400.00	496.00
	PAPER, AND MANUFACTURES OF.			
	(All paper and manufactures of paper mentioned and embraced in this section, in addition to the duties herein fixed, shall pay the internal-revenue tax upon paper, viz: paper, wrapping, hanging, blotting, and other similar, 5 francs per 100 kilos, net; paper, writing, drawing, music, and other similar, 10 francs per 100 kilos, net; note paper, 11 francs per 100 kilos, net; paper for cigarette and imitations of parchment paper, 15 francs per 100 kilos, net.)			
409	Paper, fancy, colored, marbled, figured, covered or not covered with common metal.	187.20 to 99.84	8.00	25.00
	Other, all kinds	99.84		11.00
410	Pasteboard:			
	In sheets	99.84 and 187.20	8.00	11.00
411	Molded, (papier maché)	249.60	10 per cent. ad valorem	11.00
412	Boxes, covered with white and colored paper	124.80	do	36.00
	Albums, scrap books, and other works of pasteboard decorated with paintings, stuffs, wood, braided straw, common metal.	124.80	60.00 per 100 kilos. or 10 per cent. ad valorem.	70.00
413	Books	12.48 to 187.20	Free	Free.
414	Engravings, lithographs, drawings, photographs, charts and maps, music engraved or printed.	374.40	do	do.
417	Labels and cards, engraved or colored	374.40	do	do.

* Except hosiery, which pay 249 francs 60 centimes, and 499 francs 20 centimes per 100 kilos., and blankets and carpets which pay 62 francs 40 centimes.

(a) Imitation of cashmere is prohibited.

(b) Except trimmings of laces of silk mixed with false gold or silver, which are admitted by paying a duty of 3,120 francs, 374.40 francs and 998.40 francs per 100 kilos, according to the kind.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	SKINS AND FURS DRESSED AND MANUFACTURED:			
420	Skins dressed:	*Per* 100 *kilos.*	*Per* 100 *kilos.*	*Per* 100 *kilos.*
	Japanned, patent, and morocco	Prohibited	60.00	74.00
	Of sheep, dyed	do	45.00	56.00
	Other, dyed	do	60.00	74.00
	Other, of goat, sheep, lamb	do	10.00	10.00
	Other, not denominated	do	10.00	50.00
421	Boots	do	10 per cent. ad valorem	2.00 a pair.
	Gaiters for men and women	do	do	1.25 a pair.
422	Shoes	do	do	0.75 a pair.
423	Straps for wooden shoes	do	do	62.00 per 100 kilos.
424	Gloves:			
	Lamb or calf, simply sewed	do	5 per cent. ad valorem	1.00 a dozen.
	Lamb or calf stitched	do	do	1.50 a dozen.
	Kid or doe, simply sewed	do	do	2.00 a dozen.
	Kid or doe stitched	do	do	2.50 a dozen.
425	Saddlers' work (other than saddles)	do	10 per cent. ad valorem	200.00 per 100 kilos.
426	Saddles:			
	For men	do	10 per cent. ad valorem	10.00 each.
	For ladies	do	do	12.00 each.
427	Harness-makers' work	do	do	50.00 per 100 kilos.
428	Leather belting, endless, for machinery	Prohibited	10 per cent. ad valorem	62.00
429	Leather pipes and conduits	do	do	62.00
430	Trunks, of wood or of pasteboard, covered with leather	do	do	74.00
431	Morocco, manufactured:			
	Supple	do	do	200.00
	Hard	do	do	150.00
432	Other manufactures of skins or leather (*a*)	do	do	100.00
	MANUFACTURES OF METALS.			
437	Articles made of gold, silver, aluminium, platina, and other precious metals.	520.00	500.00	500.00
438	Articles plated, coated, gilded or galvanized with gold and silver:			
	Imitations of jewelry	Prohibited	500.00	500.00

	Other	do	100.00	100.00
439	Watch cases, separate:			
	Gold	520.00	500.00	1.20 each.
	Silver, aluminium, platina	520.00	500.00	0.50 each.
	Common metal	According to the material	According to the material	0.50 each.
	Watches:			
440	With gold cases	1.37 to 5.49 each	5.00 or 5 per cent. ad valorem	4.50 each.
441	With silver cases	do	1.00 or 5 per cent. ad valorem	1.50 each.
442	With cases of common metal	do	—— 5 per cent. ad valorem	1.00 each.
	Movements without cases:			
443	Gilded, nickeled or finished	12.48 ad valorem	5 per cent. ad valorem	2.50 each.
444	Other	do	do	0.20 each.
445	Unfinished parts and materials for watchmaker's work	624.00	50.00	50.00
446	Wall and mantel-piece clocks:			
	Wood	2.50 and 1.25 each	1.00 piece	15.00
	Other	12.48 per cent. ad valorem	5 per cent. ad valorem	25.00
447	Clocks for public buildings	do	do	10.00
448	Movements of clocks and time-pieces	do	do	50.00
449	Musical clocks	654.00 100 kilograms	do	60.00
450	Counters, pedometers, &c	12.48 per cent. ad valorem	do	1.00 each.
	Engines and machinery complete.			
	Steam machinery:			
452	Stationary	31.20	6.00	6.00
453	For the navigation	43.68	12.00	12.00
454	Locomobile and locomotives	49.92	10.00	10.00
	Other than steam machinery:			
455	Engine tenders	37.47 and 74.88	8.00	8.00
456	Card and plate setting machine	24.96 to 81.12	6.00	6.00
457	Carding-machines, not furnished with cards	36.44	10.00	10.00
458	Machines for cleaning, scutching, and cutting the flax, wool, cotton, and other textile substances.	24.96 to 81.12	6.00	6.00
459	Spinning-machines	49.92	10.00	10.00
460	Weavers' looms	18.72	6.00	6.00
461	Bobinet-machines	74.88	10.00	10.00
462	Paper-making machines	37.44	6.00	6.00
463	Printing-machines	37.44	6.00	6.00
464	Agricultural machines (motors not included)	18.72	6.00	6.00
465	Steam-boilers, sheet iron: cylindrical or spherical, with or without flues or fire-pipes.	37.44	8.00	8.00
	Steam-boilers, sheet iron: tubular, with tubes of wrought iron, copper, or brass, or of riveted sheet iron, or any other boilers, neither spherical nor cylindrical, plain.	37.44	12.00	12.00
	Steam-boilers, cast-steel plates, all forms	Prohibited	25.00	25.00
466	Gasometers, stoves, caloriferes, in sheet iron, or part cast iron and part sheet iron.	37.44	8.00	8.00
	Open boilers, in sheet iron, or part cast iron and part sheet iron	Prohibited	8.00	8.00

(a) Prohibited, except pack-saddles, which paid in the old tariff 0.60 a piece, and leather bags, which paid 12.48 per cent. ad valorem.
(a) The duty on sewing-machines is the same as the duty on machines not denominated.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	MANUFACTURE OF METALS—Continued.			
	Engines and machinery complete—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
467	Copper boilers and apparatus for sugar works for distilling and heating purposes.	74.88	10.00	10.00
468	Sewing-machines	(*a*)	(*a*)	6.00
469	Machines tools, and other machines not denominated, of which sheet iron is a component, at the rate of—			
	75 per cent. or more	24.96 to 81.12 according to the weight of the machine.	6.00	6.00
	Less than 75 per cent. and not less than 50 per cent		10.00	10.00
	Less than 50 per cent		15.00	15.00
	Separate parts of machinery.			
470	Sheets and fillets for cards:			
	Furnished with teeth	249.60	50.00	50.00
471	Not furnished with teeth			20.00
473	Dents or teeth of reeds, reeds, combs and mountings for looms, (iron or copper).	249.60	30.00	30.00
474	Separate parts of machinery, made:			
	Of cast iron, polished, filed, and adjusted	18.72 to 99.84 according to weight.	6.00	6.00
	Of forged iron: Polished, filed, and adjusted or not adjusted, of whatever weight (including axle-trees, springs, and tires).	74.88 to 124.80	10.00	10.00
	Of tilted steel, polished, filed, adjusted or not adjusted:			
	Weighing more than 1 kilogram	187.20	11.00 and 15.00	10.00
	Weighing 1 kilogram or less	187.20	20.00	20.00
	Of copper, pure or alloyed	249.60	20.00	20.00
475	Tools, helved or not, pure iron, steeled iron, steel or copper	62.40 to 280.80	10.00 to 20.00	10.00 to 20.00
476	Printing types, new, and cliches, engraved or not engraved	62.40 to 249.60 (*b*)	8.00	8.00
478	Stereotypes and coins, engraved for printing on paper	18.72 per cent. ad valorem	Free	Free.
479	Wire cloth and metallic gauze:			
	Iron or steel	93.60 to 187.20	10.00	10.00
	Copper or brass	187.20	20.00	20.00

480	Needles:			
	Having in length less than 5 centimeters	906.40	200.00	248.00
	Having in length 5 centimeters or more	249.60 and 624	100.00	124.00
481	Knitting needles, crochets, and other similar objects not mentioned (steel, iron, or copper).	124.80 and 249.60	14.16 and 20.00	25.00
482	Pins	124.80 and 249.60	50.00	50.00
483	Fish-hooks	249.60	500.0	50.00.
484	Pens, metallic, other than gold or silver	499.20	100.00	100.00,
485	Cutlery, common	Prohibited	15.00 per cent. ad valorem	125.250, and 375.00
	Cutlery, fine	do.	do.	600.00
486	Copper cylinders for printing, engraved or not engraved	18.72 per cent. ad valorem.	15.00	15.00
487	Iron castings, all manufactures of	Prohibited	3.00 to 10.00	3.00 to 10.00
488	Iron, manufactures of, ironmongery, hardware, locksmith works	do	8.00 and 12.00	8.00 and 12.00
494	Irons:			
	Anchors	12.48	8.00	8.00
	Cables	18.72	8.00	8.00
	Chains	46.80	8.00	8.00
495	Nails, iron:			
	Machinery made	Prohibited	8.00	8.00
	For shoemakers and saddlemakers	124.80	12.00	12.000
496	Iron, wood-screws, eyebolts, ring hooks	Prohibited	8.00	12.00 and 8.00
497	Iron bolts and nuts	do.	8.00	8.00
498	Iron pipes and joinings	43.68 and 62.40	11.00 and 20.00	11.00 and 20.06
499	Iron, hardware, household articles, &c.:			
	Polished or painted	Prohibited	14.00	14,00
	Tinned, enameled, or varnished	do.	16.00	16.00
500	Steel cables made from steel wire	Prohibited	20.00	25.00
501	Steel, small manufactures of, such as pearl slides, brooches, &c	do	20.00	20.00
502	Steel hardware, and all other manufactured articles from pure steel, not otherwise denominated.	do	20.00	20.00
503	Cast iron and iron, manufactures of, not polished, the weight of the iron being less than one-half of the total weight.	do	5.00	5.00
	Weight of iron being equal or superior to half of the total weight	do	8.00	8.00
504	Cast-iron and iron, manufactures of, polished, enameled or varnished, or ornamented with iron, copper, or brass.	do	12.00	12.00
	Copper, pure or alloyed with zinc or tin, manufactures of:			
505	Smith's work	Prohibited	20.00	20.00
	Works of art, ornaments, and other works	124.80, 249.60 or prohibited	20.00	20.00
506	Lead, pipes and other manufactures of, all kinds	29.95	3.00	3.00
	Tin, pure or alloyed with antimony:			
507	Vessels and pots	124.80 and 249.60	30.00	30.00
	Other ware	Prohibited	30.00	30.00
508	Zinc, manufactures of, all kinds	do	8.00	8.00
509	Nickel, alloyed with copper or zinc (German silver), manufactures of	do	100.00	100.00
	ARMS AND AMMUNITION.			
510	Arms of war	Prohibited	Prohibited	Prohibited.
511	Side arms, not military	499.20	40.00	40.00

(*b*) Acoding as they are types for printing French, German, or other langnages.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	ARMS AND AMMUNITION—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
	Fire-arms, not military:			
	Muzzle-loading	249. 60	240. 00	240. 00
	Breech-loading	249. 60	240. 00	360. 00
511	Gun-barrels, rough and unpolished, not military	249. 60	20. 00	60. 00
	Percussion caps:			
513	For military uses	Prohibited	Prohibited	Prohibited.
	For sporting uses	10 per cent. ad valorem	10 per cent. ad valorem	60. 00
512	Gunpowder	Prohibited	Prohibited	Prohibited.
	Cartridges:			
514	For military uses	Prohibited	Prohibited	Prohibited.
	For shooting societies	10. 40 per cent. ad valorem	10. 40 per cent. ad valorem	25. 00
	For sporting uses, filled	Prohibited	Prohibited	Prohibited.
	For sporting uses, empty (cases for cartridges, primed or not primed.)	10. 40 per cent. ad valorem	10. 40 per cent. ad valorem	60. 00
515	Projectiles	Prohibited	Prohibited	Prohibited.
	Slow-matches for mines:			
516	Ordinary	10. 40 per cent. ad valorem	10. 40 per cent. ad valorem	35. 00
	Covered with linen ribbon	do	do	50. 00
	Covered with gutta percha	do	do	80. 00
517	Fire-works for amusements	do	do	100. 00
	MANUFACTURES OF WOOD.			
518	Furniture	18. 72 per cent. ad valorem	10 per cent. ad valorem	From 7 francs to 25 francs.
525	Button molds	16. 22 100 kilos.	13. 00 or 10 per cent. ad valorem.	13. 00
	Wooden shoes:			
526	Common	14. 98	12. 00	2. 00
	Painted or varnished	31. 20	25. 00	25. 00
	Fur-lined	124. 80	25. 00	25. 00
527	Boxes, white wood	38. 69	10 per cent. ad valorem	2. 00
	Planks and boards for floor, planed, fluted, grooved and (or) tongued:			
528	Of oak or hard wood	18. 72 per cent. ad valorem	10 per cent. ad valorem	2. 00
	Of pine or soft wood	do	do	1. 00
	Bushel-makers ware:			

529	Common	4.99	4.00	4.00
	Fine	4.99	4.00	4.00
530	Other manufactures of wood	18.72 per cent. ad valorem	10 per cent. advalorem	7.00
	MUSICAL INSTRUMENTS.			
	Pianos:			
531	Upright	374.40 each	10 per cent. ad valorem	50.00
	Long	do	do	75.00
	Harmoniums and harmonifiutes and harmonicons:			
	Weighing less than 60 kilograms	22.46 each and 374.40, according to size.	10 per cent. ad valorem	10.00
	Weighing 60 kilograms and less than 120 kilograms			20.00
	Weighing 120 kilograms or more			30.00
	Church organs, with pipes:			
	Weighing less than 4,000 kilograms (weight of package included)	499.20 each	10 per cent. ad valorem	100.00
	Weighing from 4,000 kilos. to 10,000 kilos. .... do.....do	do	do	200.00
	Weighing from 10.001 kilos. to 20,000 kilos	do	do	400.00
	Weighing from 20,001 and more	do	do	500.00
	Barrel organs	92.46 each	do	15.00
538	Cordage rope and twine	31.20	15.00	3.75 to 22.50.
	Fishing nets:			
539	Cotton	Prohibited	20.00	20.00
	Other	31.20	20.00	20.00
	WHEELWRIGHTS' AND COACHMAKERS' WORKS.			
	Carriages:			
540	Weighing 125 kilograms or more	Prohibited	10 per cent. ad valorem	50.00
	Weighing less than 125 kilograms, and velocipedes	do	do	120.00
	Carriages, carts, and wagons for the use of commerce and agriculture:			
	On springs	18.72 per cent. ad valorem	10 per cent. ad valorem	12.00
	Not on springs	do	do	6.00
	Railway cars:			
541	For railroad with ordinary tracks; first-class passenger carriages	Prohibited	10 per cent. ad valorem	16.00
	For railroad with ordinary tracks; second-class passen. carriages	do	do	11.00
	For railroad with ordinary tracks; goods wagons	do	do	9.00
	For railroad with narrow tracks; passenger carriages	do	do	20.00
	For railroad with narrow tracks; goods wagons	do	do	10.00
	Carriages for tram-railways, with ordinary tracks	do	do	20.00
	Carriages for tram-railways, with narrow tracks	do	do	25.00
	Cars for carrying earth, stones, etc	24.96	do	5.00
	SHIPS, VESSELS, AND BOATS.			
542	Seagoing vessels, wood or iron, sailing or steam, rigged and fitted out.	41.60, 52, and 62.40 per ton	2.00 per ton	2.00 per ton
543	Hulls of seagoing vessels, in wood or in iron	31.20, 41.60, and 52 per ton	2.90 per ton	2.00 per ton
	River crafts of every dimension:			
544	Wood	24.96 per ton	10.00 per ton	10.00
	Iron	37.44 per ton	40.00 per ton	40.00
546	Tackle, apparel, and furniture of ships	12.48 per cent. ad valorem	10 per cent. ad valorem	To be classed with the material which is their chief component.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	MISCELLANEOUS MANUFACTURES.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
	Manufactures of india rubber and gutta percha:			
547	Pure or mixed with other substances	24. 96 and 62. 40	20. 00	20. 00
	Applied upon textile materials or upon any other material (*a*)	249. 60	100. 00	100. 00
	Elastic fabrics	249. 60	200. 00	200. 00
	Shoes	249 60	60. 00	60. 00
	India rubber ready-made clothing	(*b*). h	120. 00	120. 00
	Manufacture of felt:			
	Adhesive, for sheathing	124. 80	10 per cent. ad valorem	25. 00
	For carpets and shoe-soles	499. 20	do	35. 00
	For machines and pianos	499. 20	do	250. 00
	Other	499. 20	do	35. 00
	Scientific and philosophical apparatus and instruments:			
	Optical, mathematical, nautical	37. 44 per cent. ad valorem	Free	Free
	Chirurgical, chemical	12 48 per cent. ad valorem	do	Do.
563	Spectacles, eye-glasses, magnifying-glasses, single and double opera-glasses.	124. 80 and 499. 60	Free	150. 00
	Manufactures of ivory and of mother-of-pearl.			
564	Combs	499. 20 or prohibited	60 francs per 100 kilograms or 10 per cent. ad valorem.	625. 00
565	Billiard-balls	do	do	625. 00
566	Piano keys	do	do	625. 00
567	Cigar-cases and other articles	do	do	1, 250. 00
568	Articles of bone, horn, wood, vulcanized caoutchouc, ivory, or factitions tortoise-shell, not otherwise denominated.	499. 20 or prohibited	60 francs per 100 kilograms or 10 per cent. ad valorem.	190. 00
	Fans and hand screens:			
569	Ivory, mother-of-pearl, tortoise-shell	249. 60	10 per cent. ad valorem	1250. 00
	Other	124. 80 and 249. 60	do	300. 00
	Brushes:			
570	Common, mounted in wood, vegetable or whalebone fibers	249. 60 and 499. 20	10 per cent. ad valorem	37. 50
	Common, mounted in wood, bristles or hair	do	do	75. 00
	Fine, mounted in bone, ivory or metal	do	do	125. 00

	Buttons:			
571	Pierced (for pantaloons), metal, alloy, bone, papier-maché, cast-iron.	124.80 and 249.60 or 10 per cent. ad valorem.	124.80 and 249.60 or 10 per cent. ad valorem.	50.00
	Porcelain, jet, glass, not mounted	...do	...do	20.00
	Of glass, mounted in metal, molded, horn, wood, buffalo, gilt, silvered, plated, oxydized, or nickeled, metal, covered with silk, cloth, or other material.	...do	...do	
		...do	...do	150.00
	Of mother-of-pearl, ivory, shell	...do	...do	350.00
572	Toys and cheap fancy articles	99.84	10 per cent. ad valorem	60.00
	Matches:			
573	Imported by private individuals	Prohibited	Prohibited	Prohibited.
	Imported by the company, sole lessee of the monopoly for the sale of matches made of wood.	...do	5 per cent. ad valorem	12.00
	Other	...do	...do	20.00
575	Millinery, especially head-dresses, hats, and bonnets	14.98 per cent. ad valorem	Free	Free.
576	Flowers, artificial	...do	...do	Do
	Umbrellas and parasols:			
	Cotton	Prohibited	10 per cent. ad valorem	.25 each.
	Alpaca	...do	...do	.50 each.
	Silk	2.50 each	...do	1.25 each.

LIST OF THE PRINCIPAL ARTICLES, THE DUTIES ON WHICH HAVE BEEN INCREASED BY THE NEW GENERAL TARIFF.

	ANIMALS, LIVING.			
	Cattle:			
4	Oxen	3.74 each	2.60 each	15.00 each.
5	Cows	1.25 each	1.25 each	8.00 each.
6	Bulls	3.74 each	3.74 each	Do
7	Steers, bullocks, and heifers	1.25 each	1.25 each	5.00 each.
8	Calves	.31 each	.31 each	1.50 each.
9	Rams, ewes, and wethers	...do	...do	2.00 each.
10	Lambs	.12½ each	.12½ each	.50 each.
11	Goats, male and female, kids	Free each	Free	Do
12	Hogs	.31 each	.30 each	3.00 each.
13	Sucking pigs	.12½ each	.12½ each	.50 each.
14	Game, poultry and turtles	Free	Free	20.00 each.
	ANIMAL PRODUCE.	*Per* 100 *kilos.*	*Per* 100 *kilos.*	*Per* 100 *kilos.*
	Meat:			
16	Fresh butchers'	.62	Free	3.00
17	Fresh game, poultry, and turtles	Free	...do	20.00
18	Preserves in cans, salted or otherwise seasoned	4.64	4.60	8.00
	Preserves in cans not salted	.62	Free	8.00
19	Extracts of, in cakes or other	Free	...do	4.00
32	Wax, yellow, brown, or white	1.04	1.00	10.0

(*a*) Except tissues in piece covered with india-rubber and gutta-percha, which pay the duty imposed upon the component tissues, according to kind.
(*b*) Duty according to kinds of tissue.

CUSTOMS TARIFFS OF FRANCE—Continued.

Comparative statement of the old, the conventional, and the new tariff of France, &c.—Continued.

[Duties in francs and centimes.]

Number of articles.	Denomination of articles.	Old general tariff.	Conventional tariff.	New general tariff.
	ANIMAL PRODUCE—Continued.	*Per 100 kilos.*	*Per 100 kilos.*	*Per 100 kilos.*
	Butter:			
36	Fresh or melted	Free	Free	13.00
	Salted	2.60	2.50	15.00
37	Honey	Free	Free	10.00
47	Oysters, pickled	6.24	6.00	10.00
51	Whale oil and spermaceti	2.08	2.00	5.00
59	Sponges, prepared for toilet and pharmacy use	52.00	50.00	65.00
	FRUITS.			
79	Lemons and oranges	12.48	2.00	4.50
80	Figs	19.97	.30	6.00
	Fruits:			
80	Dried grapes	.31	.30	6.00
80	Almonds, walnuts, filberts, hazelnuts	Free	Free	6.00
80	Dried, other	19.97	8.00	3.00
81	Fruits, preserved in sugar or honey	32.76	22.00	52.50
	Camphor:			
108	Crude	Free	2.00	2.00
108	Refined	2.08	2.00	4.00
	Acid:			
218	Benzoic	Free	Free	124.00
218	Oleic	do	do	5.00
241	Citrate of lime	1.25	do	7.50
239	Borax, native	Free	do	8.75
246	Kermes, mineral, liver of antimony, crocus mineral, and other oxides or salts of antimony, excepting emetic.	2.08	2.00	25.00
	Dyes derived from coal tar:			
271	Dry	Free	Free	125.00
271	In paste, containing at least 50 per cent. of water	do	do	70.00
271	Picric acid	do	do	25.00
271	Other, not denominated	do	do	5 per cent. ad valorem, to be converted into specific duty.
274	Prussian blue	do	do	12.50

	Carmine:			
275	Common	do	do	25.00
275	Fine	do	do	200.00
280	Ochres, ground or otherwise, prepared for painting	do	do	.25
281	Terre de Cologne, Cassel, Italy, Sienna, and umbra	do	do	.50
283	Green of Scheinfurt and mixed green, ashes green and blue	do	do	5.00
283	Green, mountain, of Brunswick, and other green resulting from the mixture of chromate of lead and Prussian blue.	do	do	5.00
284	Talc, pulverized	do	do	.25
285	Colors ground in oil, including the carbonate of lead prepared in the same way.	do	do	4.00
286	Colors in paste, prepared in water, for wall-paper	do	do	7.50
287	Other colors, not denominated	do	do	5 per cent. ad valorem, it being optional to convert it into specific duty.
290	Sizing made from Iceland moss			12.00
308	Vinegar, other than perfumery (a)	2.08	2.00	4.50
	Barrels, empty, new:			
522	Bound with wooden hoops	Free	Free	2.00
522	Bound with iron hoops	Free	Free	2.50
534	Pith of rushes, rattans, reeds, of 3 millimeters or more in diameter, rounded by means of a drawing plate.	10.40	10.40	10.00
434	The same, of less than 3 millimeters in diameter	10.40	10.40	20.00
536	Basket work, fine, of willow, straw, or other vegetable fiber mixed or not mixed with other textile materials.	14.08 and 24.96	10 per cent ad valorem	45.00
	Hats:			
537	Straw, neither shaped nor trimmed	10.40	10.00	250.00
537	Of bark, esparto grass, &c., or of any other material, neither shaped nor trimmed, fine.	10.40	10.40	150.00
537	The same, common	10.40	10.40	50.00
537	Of vegetable substance of every description, shaped or trimmed	10.40	10.40	300.00

a Not including internal-revenue tax.

REPEAL OF THE HAYTIAN INVOICE TAX.

TRANSMITTED BY CONSUL GOUTIER, OF CAPE HAYTIEN.*

The law taxing 1 per cent. on the invoice value of all merchandise for Hayti has been repealed, and this same tax is to be levied in this country.

I respectfully inclose a translation of the new law, which will be enforced December 1, 1881.

STANISLAS GOUTIER,
Consul.

UNITED STATES CONSULATE,
Cape Haytien, November, 1881.

[Translation.]

Law that annuls the charges for visaing in foreign countries and establishes a duty of control, of statistics, and of pre-emption.

SALOMON, President of Hayti:

Whereas the law of August 23, 1877, that establishes charges for consular verifications has occasioned in practice certain difficulties which is important to have removed:

Upon the proposition of the secretary of state for finances, commerce, and foreign relations, and with the advice of the council of secretaries of state, has proposed, and the legislative body has enacted the following law:

CHAPTER I.

ARTICLE 1. From the first of December next the consuls and consular agents of the Republic will be obliged to verify gratuitously all invoices of merchandise or specie destined for any port in Hayti, and this verification of the invoices in triplicate remains obligatory in conformity with article 3 of the law of August 23, 1877.

It likewise continues to be obligatory, the authentic declaration (of the shipper) before a notary public, in ports where there are no Haytian consular agents.

ART. 2. In default of the above verification or authentic declaration a penalty of *fifty* dollars will be incurred.

ART. 3. The fees for certifying to manifests, bills of health, passports, for authenticating signatures, granting temporary certificates of naturalization, and all other documents not here provided, shall continue to be collected in conformity with article 1 of the law of August 23, 1877.

ART. 4. The consuls and consular agents are not entitled to any portion of the fees collected. They shall account for them to the minister of finances and commerce, who will have them classified in chapter 3, section 1, of ways and means, and they (these fees) may be used for defraying the salary accorded to these agents, the necessary documents to that effect having been duly prepared.

ART. 5. In compensation for these services, the consuls and consular agents of the Republic will receive annually for all expenses whatsoever, the following allowances, viz, for Paris, Liverpool, New York, and Havre, to each agent, $500; for Bordeaux and Marseilles $300; for Hamburg and Boston $400; for Wilmington, Bangor, Philadelphia, Kingston, St. Thomas, and Hanover, $200; for St. Nazaire, London, and Antwerp, $100; for Nantes, Nice, Rouen, Barcelona, Lisbon, Belfast, Dundee, Gibraltar, Bremen, Monrovia, Brussels, Ghent, Vienna, Naples, Geneva, Amsterdam, Christiania, Algiers, Oran, Havana, Mobile, Curaçoa, Santiago de Cuba, Mayaguez, Inagua, Nassau, San Domingo, Monte Christe, and Puerto Plata, each $50.

CHAPTER II.

ART. 6. After the completion of a vessel's manifest by the interpreter, he shall deliver all the invoices visaed by him, to the custom-house authorities, who, before

* The substance of this report was given to the press December 3, 1881.

allowing the entry of any merchandise, will make out for each consignee a special account of duties for control and statistics, at the rate of 1 per cent. of the amount of the invoice of merchandise or specie.

ART. 7. This special account will be in conformity with the laws and resolutions concerning the finances already decreed and the instructions and circulars of the minister of finances, that is to say, that the sums received shall be paid to the banks, whose receipt, countersigned by the administrator of finances, will enable the consignee to obtain his final receipt from the custom-house and make entry of his merchandise.

ART. 8. As soon as the interpreter shall perceive that the value of the merchandise declared in the invoice furnished him has been diminished or is false, he shall give notice of that fact to the collector of customs, who shall notify the administrator of finances, who is bound to convoke within the 24 hours following a commission, for the capital, to be composed of one member of the Chambre des Contes (bureau that audits accounts) and two merchants, but in the other financial arrondissement, the magistral communal (mayor), the justice of the peace, and one merchant shall determine the case, the consignee of the goods having been duly notified.

The abstention of the interpreter will not prevent the collector of customs or the administrator himself from taking the initiative in the denunciation.

ART. 9. If the value of the merchandise declared has been diminished or is false, the *procès-verbal* signed by the members of the commission shall be made out in duplicate—one copy of which will be retained by the administrator, while the other will be given to the owner of the merchandise, who shall give his receipt for the same.

This *procès-verbal* will state that the government retains the merchandise declared, whose value is recognized to be diminished and false, in consideration of 15 per cent. accorded to the proprietor on the amount of his declaration; all commissions, charges for packing, and all other charges whatsoever remain to his account.

ART. 10. The owner of the merchandise will then make out his bill, which after having been legalized by the administrator of finances under the title of duties by pre-emption, shall be paid him without delay. The reimbursement will only take place after the sale has been effected.

ART. 11. These formalities accomplished, the administrator will cause to be sold at public auction the merchandise retained, the proceeds of which shall be legalized under the title of receipts for duties by pre-emption.

ART. 12. The invoices for specie or merchandise that shall have been paid in foreign countries for the consular verification previous to December 1, and that shall arrive in our ports after that date, shall be exempted from the duty of control and statistics.

ART. 13. The present law repeals all laws and dispositions of laws inconsistent with its provisions, and the secretary of state for finances, commerce, and foreign relations will attend to its enforcement.

Done at the national mansion in Port-au-Prince the 19th day of October, 1881, and the 79th year of independence.

The president of the senate:

M. MONTASSE.

The secretaries:

T. DUPUY.

J. P. LAFONTANT.

Done at the house of representatives in Port-au-Prince, the 19th day of October, 1881, and the 78th year of independence.

The president of the house:

FRANÇOIS MANIGAT.

The secretaries:

N. LEGER.

D. THEODORE.

In the name of the Republic.

The President of Hayti orders the seal of the Republic to be affixed to the above law of the legislative body, and that it be printed, published, and executed.

Given at the national palace in Port-au-Prince, the 22d day of October, 1881, and the 18th year of independence.

SALOMON.

By the President:

The secretary of state for finances, commerce, and foreign relations:

B. ST. VICTOR.

NOTES

Correction.—On page 73 of the Cotton Goods Trade of the World the quantities of raw cotton imported into the United Kingdom during the year 1880 are given in *pounds;* they should be given in (*cwts.*) ***hundred weight.***

The crops of Palestine.—Consular-Agent Hardegg, of Jaffa, reports an unexpected sufficiency in the harvest of his district last year. He writes that, after the almost entire failure of the crops in the year previous, the present yield is abundant in every respect.

There was plenty of wheat, barley, &c., raised, and the fruit of the olive trees was not behind the rest. The desire, however, to make good the losses of previous years in home trade caused high prices upon cereals, and consequently a failure in the export trade, and hence a disappointment in profits, and in some cases heavy loss on cargoes purchased for the markets of England and France, where competition with like products from other countries was encountered. The imports at the port of Jaffa for the past year amounted to $1,388,000, of which the principal articles were cottons, $300,000; rice, $170,000; sugar, $125,000; coffee, $100,000; furniture, $100,000; and wool, $96,000.

Steamship line from New York to Trieste.—Under date of December 23, 1881, Consul-General Weaver, of Vienna, writes as follows concerning a proposed line of steamships from Trieste to New York:

It will be of interest to you and our merchants trading with the ports on the Mediterranean and the Adriatic Seas to learn that the Austrian Lloyd Steamship Company have issued a circular announcing their intention of sending out on the 25th proximo a steamer from Trieste to New York. This will be an experiment in order to ascertain if the trade between these ports can be made profitable; and, in order to contribute as far as possible to this end, it is intended to touch at Bari, on the Adriatic, and also at Messina, Palermo, Barcelona, Malaga, Cadiz, and Lisbon. Special arrangements have been made with the Southern Railroad, in order to facilitate shipments from the interior of the empire, and special through rates of freight established, viz: from Vienna to New York, including everything except insurance, the freight per ton of 1,000 kilograms is advertised at from 64 to 73 shillings, according to the quantity, for all goods, excepting furniture, which must pay an advance of 50 per cent.

At the close of 1880 this well known steamship company, with a capital of over 16,000,000 florins, possessed 72 steamers, of 92,685 tons burden, plying between Trieste and Fiume, and almost every important port on the Mediterranean, and during the last three years paid dividends of 13, 9, and 8 per cent., respectively. The general decline of the port of Trieste, caused doubtless by the greater facilities offered by the steamship lines on the northern coast of Europe, and the railways in connection therewith, has attracted general attention, and this "new departure" of the Austrian Lloyd's is an indication of a strong determination to redeem lost ground if possible.

Whether the project proves successful or not must depend to a great extent on the wisdom of the various interested parties and the action of the Austrian Government, for if the prohibition on our American swine products is to be maintained, and the entry duty on petroleum be trippled, until the duty almost equals the value, it must be seen that little hope remains of procuring any great amount of freight from New York to Trieste. It is, however, an experiment, and one frequently advised, in order to test the extent of the want of regular direct steam communication between the Adriatic and the United States. And as the line appeals to the national pride and personal interests of all Austrians, industrial and commercial societies, and great effort is being put forth to publish the fact of the establishment of this new line, it is to be hoped that it may not be lightly abandoned, but prove successful, and tend to the desired development of trade between the United States and Austria-Hungary. This may, therefore, be a favorable opportunity for our merchants to investigate the practicability of extending their trade in this direction by introducing many additional products and manufactures as yet unknown upon the markets of this empire.

Olive-oil trade of Bordeaux.—Consul Roosevelt reports as follows concerning the olive-oil trade of Bordeaux:

The commerce in olive oil at the port of Bordeaux is constantly on the increase, and as the United States is one of the largest receivers of this article, it will not be uninteresting to consider a few of the leading facts respecting its production, the process of refining it, and the value and price of oils exported.

The best quality of crude oil comes from the olive orchards in the vicinity of Nice and the north of Italy, where it is pressed from the olives by very primitive machinery. It is then shipped to Bordeaux in large hogsheads and sold in bulk to the various refiners at prices which vary according to the year's production and the demand; after which it goes through the ordeal of refining, bottling, and labeling, and is then put on the wholesale market at from 15 to 28 francs per case of one dozen bottles.

There are five or six firms in Bordeaux which have met with great success in the trade, and each has its special process for refining. These processes are merely a succession of filters made of a variety of materials, such as felt, canvas, &c., through which the oil passes at an even temperature, the quality being materially affected by a variation of a few degrees either higher or lower, and it is the labor of refining which augments the price of the oil.

The bottles contain from 16 to 18 ounces, and the half bottles from 8 to 9 ounces each.

The total value of oil shipped to all countries from this port in 1879 was $1,088,115.27, and in 1870 $1,180,782; and of that shipped to the United States in 1879 was $149,327.86, and in 1880 $163,903.72; showing an increase of $82,667.27 in total exports, and $14,575.86 on exports to the United States.

Trade at Iquique, Peru.—Consul Merriam writes, under date of October 13, 1881, to Department of State relative to the extension of trade from the United States with Iquique, as follows:

The proportion of American vessels arriving at this port, as compared with those of other first-class powers, is still very small. During the last four years only one American vessel arrived direct from New York with an assorted cargo; only two from San Francisco, with barley, and three from Oregon, with lumber. American vessels arriving at this port, with few exceptions, make Valparaiso first, discharge their cargo, and then come here to load nitrate of soda for Europe or the United States.

The want of direct communication with this port is the principal obstacle to the development of trade with the United States. Freights from New York by steamer and the railroad on the Isthmus of Panama are so high that it does not pay to import merchandise of bulk, and as many articles—such as lard, kerosene, and furniture, for example—are bulky, merchants prefer to order their goods from Valparaiso, and to pay higher prices for them, than to pay high steamer freights and pay cash on the arrival of the invoice, or in advance, when sending on the order, as many houses at home require.

I have persuaded some merchants to make the experiment of sending trial orders for goods to be brought by vessels bound to Valparaiso, which, after discharging the bulk of their cargo there, come here to load nitrate.

This indirect mode of importation, however, has its disadvantages, as a delay of several weeks might be suffered in New York for want of vessels bound to Valparaiso and Iquique, and if goods are shipped by vessels bound to Valparaiso only, the expenses of trans-shipment at that point, including damage by handling, loss of packages, &c., offset the advantages of lower first prices in New York.

The remedy needed is more ships, whether sailing-vessels or steamers, which come direct to this port. Meanwhile, but little increase of trade can be expected. The consumption of American goods, however, imported by way of Valparaiso is considerable, and is on the increase. Among others may be mentioned lard, kerosene, chairs, iron bedsteads, cooking-stoves, plated-ware, cotton goods, sewing-machines, cutlery, and hardware of various kinds.

The market is a good one, and with the increased exportation of nitrate to the States, there ought to be an increased importation of American goods.

The Haytien Industrial Exhibition.—Consul-General Langston writes to the Department of State, under date of November 15, 1881, relative to the Haytien Exposition as follows:

The Exposition has been open for the past two months, and has been visited by hundreds of people who are required to pay, except on Sundays and Thursdays, when it is opened to the public free of charge.

Although as a national exposition regarded in the light of even the ordinary standards pertaining to such enterprises, it may not take high rank, it is not a beginning

to be despised. Its moral significance produces a good impression, and, as the first practicable and tangible result of effort and expenditure made by the government in behalf of general industry and agriculture, it is accepted with popular approval. The exposition building is conspicuously and conveniently situated with the street railroad running from the central and distant parts of the city to the main entrance of its abundant grounds and garden. It is also capacious and convenient, with apartments large and well arranged in each of the three stories of which it consists. The cost of the erection, including the fencing of the grounds and the improvements of the garden, is estimated at $40,000. Other outlays for collecting and transporting products aggregate about $24,800.

The articles on exhibition consist, as regards agriculture, of the ordinary products of the country, including many beautiful specimens of rare and valuable native woods. As regards manufactured goods, ready-made clothing, outer and under wear, crochet and delicate needle work, shoes, trunks, tables, stands, chairs, saddles, bridles, bits, locks, keys, machetes, gun-stocks, common, case, and pen knives, axes, iron doors and iron chests, specimens of tafia rum and sirup are given conspicuous place.

An apartment on the lower floor is filled with implements and machines of American manufacture, such as the plow, the cultivator, the hoe, the axe, the shovel, the spade, and various sorts of fanning-mills.

Another apartment in the upper story of the building is arranged after the manner of a picture gallery, and here are presented specimens of drawing and painting, photography, and fancy wax work.

The most interesting feature of the many beautiful things seen in this grouping is the portraits of the distinguished chiefs of state of Hayti, all the work of a Haytian artist.

Through the wise direction of the commission of citizens who have had charge of the exposition, by appointment of the minister of agriculture, it is presumable that such impulse has been given to public feeling and thought with regard to general industry and agriculture as to justify the hope of large and profitable results in that behalf.

The agricultural jury, as the commission of awards is designated, has not yet made its report. Such report, of course, is awaited on the part of exhibitors and their friends with no little interest.

The awards will be made on the first day of January next.

AMERICAN CONSULAR REPORTS.

The labor of the American consul, as exemplified in these reports, would seem to be appreciated in foreign countries even more than at home. These reports, since their first appearance, have received special attention from the principal commercial journals and statisticians of Austria, Germany, Switzerland, and England, the result of which will undoubtedly be that a universal system of consular publications, similar to the American, will be inaugurated. It is not possible, neither is it necessary, to publish herein the many European notices of these reports; the following from the consul-general at Vienna, and from the Augsburg Gazette will serve as an illustration of all. They are very distinguished compliments paid to the American consuls, and as deserved as they are distinguished.

[From Consul-General Riley, of Vienna.]

I have to acknowledge the receipt of ten copies of consular reports for October, No 12, "Cotton trade of the world," which has attracted in this country considerable attention and complimentary notice from the press.

The *Neue Freie Presse* of this city devotes to it half a column closely printed matter, giving a *résumé* of its contents and conclusions, after stating the methods of its production by the consular corps and Statistical Bureau of the Department of State. Some of its introductory remarks are so complimentary that a short extract may be worthy of transmission. It says:

"There is scarcely a more striking proof of the economic utility which a consular service can render to a country than the abundance of practical information which is again furnished by the recently published volume of the commercial relations of the United States. For explanation we must add that, since October of last year, the United States has organized in the Department of State at Washington, a distinct statistical bureau, for the purpose of properly directing consular matters, by means of collecting, analyzing, and publishing consular reports and communicating commercial information. There exists, therefore, already among the practical Americans,

who need it much less than the Austrians, an institution, whose introduction Baron Haymerle, a year and a half ago, proposed to the delegations, and which was urged by several members of the delegation in this year's session, but whose realization, however, seems yet to be thwarted by internal difficulties."

THE COTTON-GOODS TRADE OF THE WORLD.

[From the Handels-Beilage und Alegemeinen Zeitung, of Augsburg.]

There could hardly be more conclusive evidence of the service that may be rendered to the commerce of a country by its consular officers than is to be found in the mass of practical information contained in the pamphlet which has just been issued from the press under the title of "Commercial Relations of the United States." The United States have, since October, 1880, had a statistical bureau attached to their Department of State at Washington. This bureau was created for the purpose of appropriately systematizing the consular service by collecting, analyzing, and publishing the reports transmitted by consuls, and for the dissemination of commercial information. As to to the cotton goods of the world, the diffusion of information concerning which is the object of this publication of the State Department at Washington, accurate details on this subject were desired, because American spinning and weaving made perfectly astonishing progress during the decade of 1871–1880, and (in consequence of the immense increase in the number of spindles, which was from 5,335,727 to 10,921,147, together with a proportionate increase in the home consumption of cotton, which was from 374,000,000 to 953,000,000 pounds) already bid fair to exert a controlling influence in foreign markets, and to drive British competition entirely from the field. With this view the Department of State issued a circular to the principal United States consulates, requesting them to procure all the information possible with regard to the probability that a market might be found for American cotton manufactures and yarns. It supplemented the generally very interesting data furnished by forty-six consuls, with information derived from various sources, and now publishes a pamphlet containing almost as many valuable details concerning the cotton question as did, in relation to monetary affairs, the report prepared some time since in a similar manner by Mr. Burchard. In order that the practical utility of these reports may not be doubted by manufacturers and merchants, it will be sufficient, says the Neue Freie Presse, to state that the consuls, in their answers, not only furnish statistics with regard to the part taken by each country in the trade in cotton goods, but state, in most cases with great minuteness, what kinds and qualities of goods most readily find a market, what prices they may be expected to bring, how they should be prepared, packed, and marked, &c.; nay, even under what designations and through what firms they should be introduced in order to be disposed of most speedily. To prevent these useful details from being misunderstood most of the consuls have, as they were requested to do, sent samples of spun and woven cotton, together with prices current, along with their reports.

The bureau of information attached to the Department of State places these at the disposal of those interested, and sends with them not only this instructive pamphlet, but also other particulars, which are, if necessary, supplemented by written communications. To all the foregoing must be added the information which is given concerning the duties levied on cotton (and even concerning freights) in the principal countries; and the book contains, also, together with many other valuable tables, one of very special value, showing the duties paid by cotton yarns and manufactures in all the countries of the world, so that manufacturers can find herein a basis for calculations of almost every kind. The final *résumés* are of general interest, showing, as they do, that nearly 72,000,000 spindles and 1,500,000 operatives are employed in the cotton factories of Europe, America, and India, and that the value of the cotton goods annually manufactured throughout the world is at least $1,350,000,000.

Emigration from Canada to the United States.—Consul Leland reports to the Department from Hamilton that two hundred and seventy-seven families have left that port (from the adjacent country within a radius of twenty miles) during the year ending June 30, 1881, to become citizens of the United States. These emigrants have gone mostly into our new Western States, and are of the better class of farmers, mechanics, and other thrifty laborers. At the usual ratio of 5 to a family, this would give an increase of our population of 1,385 persons.

INDEX.

A.

	Page.
Adulteration of American cotton	16
Aix-la-Chapelle: exports and imports of	80
American canned meats and the German tariff	6
cotton, adulteration of	16
cheese for export to Switzerland	31
meats in England	13
products in New Zealand	68
trade abroad, enlargement of	15
trade with Iquique, how to increase the same	165
machines and implements at the Haytian Industrial Exhibition	165
consuls, appreciation of, by European statisticians and commercial journals	166
Aniline chemistry	43
Art and Industrial Exposition of Würtemberg	102
Australia: vine culture and products in Australia	56
Australian vineyards: phylloxera in	60
Austrian Lloyd steamships, number of	164

B.

Bahia, Brazil: navigation and commerce of	33
Book trade of Stuttgart	101
Brazil: navigation and commerce of Bahia	33
Breslau: trade and industries of	94
Breweries of Würtemberg	103
British Columbia: salmon and salmon canning	27
Bronze: Manganese	65
Bordeaux: Viticultural Exhibition	74
olive-oil trade of	
Budget of Würtemberg	105

C.

Canned meats, American, and the German tariff	6
Canning salmon in British Columbia	27
Cases, specific, of cotton adulterations	24
Cattle transportation	51
Cheese: American, for export to Switzlerland	31
Swiss, analysis of	32
manufacture of	29
price of	32
Chemistry, aniline	43
China: exports and imports at Ningpo	106
Coal and metal industries of Upper Silesia	95
Coffee trade of Hayti	126

	Page.
Compensation to cotton-spinners	18
Commerce and navigation of Bahia, Brazil	33
Cotton: mixing different kinds of	16
American: adulteration of	16
damp	17
dust and sand in	17
compensation to spinners	18
American and others	19
baling and packing of	20
adulteration: suggested remedies, &c	21
Cotton, linseed, and jute culture in Egypt	35
Cotton goods manufactured in Breslau	94
"Cotton-goods trade of the world," correction thereof	164
Austrian and German journalistic commendations thereof	166
Crops of Würtemberg	102
of Palestine	
Culturé of jute, linseed, cotton, &c., in Egypt	35
of the vine and its products in Australia	56
Cultivation of the sugar-beet in Germany	90

D.

Dairy Exhibition at Ghent	46
Dyes, aniline	44
Drawbacks: New Zealand tariff	69

E.

Education, technical	14
Egypt: culture of jute, cotton, and linseed in	35
Emigration from Würtemberg	104
agents: improper action of	123
from Hamburg	84–88
from Canada to the United States	
English financial predominance	4
factory operatives: wages of	12
England: American meats in	13
Enlargement of American trade abroad	15
Exhibition: dairy products at Ghent	46
Viticultural, at Bordeaux	74
Haytian Industrial	
Exports from Leith, Scotland, to the United States	2
of Fort Erie, Ontario	11
of Egypt	42
of Manganese	66
and imports of Aix-la-Chapelle	80
of gloves and hosiery from Saxony	83
from Sonneberg	88
of rubber at Zanzibar, decline of	107
and imports at Ningpo, China	106
and imports of Jaffa	164
Extracts, flavoring, from benzole	45

F.

Factory operatives, English: wages of	12
Flavoring extracts from benzole	45

Page.
Financial predominance, English 4
French tariff: new 128–161

G.

German tariff and American canned meats 6
petroleum discoveries 125
Germany: cultivation of the sugar beet 90
Ghent: Dairy Exhibition 46
Glass manufactures at Breslau 94

H.

Hamburg: emigration from 84–88
Hayti: coffee trade of 126
Industrial Exhibition in 165
Haytian invoice tax, repeal of 162

I.

Imports at Fort Erie, Ontario 9
of spirits to Victoria 58
and exports of Aix-la-Chapelle 80
and exports at Ning-po, China 106
and exports of Jaffa 164
Industries and trade of Breslau 94
of coal and metal—Upper Silesia 95
and trade of Würtemburg 99
Industrial and Art Exposition of Würtemburg 102
Exhibition in Hayti 165
Invoice tax of Hayti, repeal of 162
Iquique: trade of 165

J.

Jute, linseed and cotton culture in Egypt 35
Jaffa: imports, exports of 164

L.

Leith, Scotland: trade with the United States 1–4
Linseed, cotton, and jute culture, Egypt 35
Linen and half-linen manufactures at Breslau 94
Leather manufactures of Würtemburg 100
Lloyds, Austrian, steamships 164

M.

Manganese: of New Zealand 64
nature and use of 65
bronze 65
mines, mode of working 65
exports 66
Manufacture of Swiss cheese 28
of wine, improved process 53–56
of raisin wine 78
of leather, at Wurtemburg 100
Manufactures of Russia in 1878 109
of Russia, table of 119

Page.

Manufactures, linen at Breslau 94
cotton goods at Breslau 94
woolen goods at Breslau 94
glassware at Breslau 94
porcelain at Breslau 94
Meats, American canned and the German tariff 6
in England 13

N.

Navigation, internal, of Russia in 1878 and 1879 121
and commerce of Bahia, Brazil 33
New Zealand manganese 64
tariff 66
effect of 69
Nova Scotia: trade and resources of 72

O.

Olive-oil trade of Bordeaux 165
Ontario: our trade with 7
emigration from, to the United States 167
Operatives, English factory: wages of 12

P.

Palestine: crops of 164
Peru (*see* Iquique) 165
Petroleum as an aniline basis 45
discoveries in Germany 125
Phylloxera in Australian vineyards 60
Price of Swiss cheese 32
Products of the vine and its culture in Australia 56
from benzole 45

Q.

Quinine trade of Würtemberg 99

R.

Railway system and prospects in Thuringia 97
Raisin wine: manufacture of 78
Ramie culture in Egypt 36
Repeal of the Haytian invoice tax 162
Resources of Nova Scotia 72
Revenue of New Zealand 70
Rubber, exports of, from Zanzibar 107
Russia's manufactures in 1878 109
flax industry 110
spinning-mills 110
linen industry 111
hemp industry 112
cotton-spinning 113
wool industry 115
cloth-mills 117
silk manufactures 118
table of manufactures 119
sanitary statistics for 1878–1879 120
internal navigation in 1878 and 1879 121

S.

Page.
Salmon and salmon canning in British Columbia 27
Saxony: trade of Chemnitz..... 83
Smelting operatives in Upper Silesia..... 95
Sonneberg: exports from 88
Spirits: imports to Victoria..... 58
Spinners, cotton: compensation to..... 23
Sugar-beet cultivation in Germany..... 90
Swiss cheese manufacture 29
Statistics, sanitary, of Russia 120
Steamship line between Trieste and New York 164
Stuttgart: book trade of..... 109

T.

Table of Russia's manufactures 119
Tariff: German, and American canned meats 6
of New Zealand..... 66
the new French..... 128–161
Tax, invoice, of Hayti, repeal of 162
Technical education..... 14
Thuringia: railway system and prospects in..... 97
Tobacco and spirits in New Zealand 69
Transportation of cattle 51
Trade of Leith, Scotland, with the United States 1–4
with Ontario 7
American, abroad, enlargement of..... 15
and resources of Nova Scotia 70
of Chemnitz, Saxony..... 83
and industries of Breslau..... 94
quinine, of Würtemberg..... 99
and industries of Würtemberg 99
book, of Stuttgart 101
coffee, of Hayti..... 126
at Iquique, Peru 165
Trieste, steamship line between, and New York 164

U.

United States: trade of Leith, Scotland, with the 95
Upper Silesia: industries of coal and metal..... 95

V.

Victoria: imports of spirits..... 58
Vine culture and products in Australia..... 56
Vineyards, Australian: phylloxera in 60
Viticultural Exhibition at Bordeaux 74

W.

Wages of English factory operatives 12
Wine manufacture: improved process..... 53–56
Woolen goods at Breslau 94
Würtemberg: trade and industries of 99
quinine trade of 99
leather manufactures 100
crops of..... 102

Page.
Würtemberg: Art and Industrial Exposition 102
breweries 103
emigration 104
budget 105

Z.

Zanzibar: decline of export of rubber 107

C

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COMMERCIAL RELATIONS OF THE UNITED STATES.

REPORTS

FROM THE

CONSULS OF THE UNITED STATES

ON THE

COMMERCE, MANUFACTURES, ETC.,

OF THEIR

CONSULAR DISTRICTS.

No. 16.—February, 1882.

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CONTENTS.

CONTINENT OF AFRICA.

Page.

Commercial and political condition of Madagascar:
(Report by Consul Robinson) 220

CONTINENT OF AMERICA.

American trade with Winnipeg:
(Report by Consul Taylor) 169
Trade between Mayaguez, Porto Rico, and the United States:
(Report by Commercial Agent Hubbard) 172
Trade of Lambayeque, Peru, with the United States:
(Report of Vice-Consul Lapoint) 179
Trade between Canada and the United States:
(Report by Commercial Agent Hibbard, of Goderich) 180
Trade and exports of Maracaibo:
(Report by Consul Plumacher) 236
The navigation of Maracaibo:
(Report by Consul Plmnacher) 237
Commerce at La Paz, Mexico:
(Report by Consul Turner) 266
Tariff and tariff regulations at Porto Rico:
(Report by Commercial Agent Hubbard, of Mayaguez) 296
Recent customs decrees in United States of Colombia:
(Report by Consul Smith, of Carthagena) 299
Town and harbor of Sagua la Grande, Cuba:
(Report by Commercial Agent Swords) 304
Labor and wages in Cuba:
(Report by Commercial Agent Swords) 307

CONTINENT OF ASIA.

Forest culture and reservation:
(Report by Consul-General Denny, of Shanghai) 199
Rice cultivation in Japan:
(Report by Consul-General Van Buren) 248
Trade and commerce of Siam:
(Report by Consul-General Halderman) 303
Free tobacco culture in the Philippine Islands:
(Report by Minister Fairchild, of Madrid) 282

AUSTRALASIA.

Commerce and products of Australasia:
(Report by Consul-General Spencer) 250
The wool industry of New Zealand:
(Report by Consul Griffin) 269

CONTINENT OF EUROPE.

Page.

Imports of American provisions at Leith:
(Report by Consul Leonard) 171
Protection to American inventions in Switzerland:
(Report by Consul Mason, of Basle) 177
Trade between Geestemunde-Bremerhaven and the United States:
(Report by Consul Canisius) 181
American vs. German petroleum:
(Report by Consul Canisius) 183
Warning against American clover seed:
(Report by Consul Elfwing, of Stockholm) 184
American coal-tar pitch wanted:
(Report by Commercial Agent Gifford, of Nantes) 187
Cheap German manufactures:
(Report by Consul Wharton, of Sonneberg) 187
The North German Lloyd:
(Report by Consul Canisius) 190
Port dues and charges at Bremerhaven:
(Report by Consul Canisius) 191
Last German census and emigration:
(Report by Consul Canisius) 193
Shipbuilding in England:
(Report by Consul Jones, of Newcastle-upon-Tyne) 195
Agriculture in Great Britain:
(Report by Consul Jones) 201
Timber trade of Russia:
(Report by Consul General Stanton) 207
Encouraging manufactures of English wool:
(Report by Consul Shepard, of Bradford) 209
Wine trade of Bordeaux for 1881:
(Report by Consul Roosevelt) 211
Tartar trade of Bordeaux:
(Report by Consul Roosevelt) 212
Railways in Switzerland:
(Report by Consul Adams, of Geneva) 215
Grain trade and harvests in Scotland:
(Report by Consul Leonard, of Leith) 217
Food adulteration in Germany:
(Report by Consul Smith, of Mannheim) 223
Mining and metallurgy of Russia:
(Report by Consul-General Stanton) 230
The Russian merchant marine in 1880:
(Report by Consul-General Stanton) 238
Trade and manufactures of Germany:
(Report by Consul W. C. Fox, of Brunswick) 241
Trade of Plymouth, England:
(Report by Consul Henry Fox, of Plymouth) 267
Cotton frauds legislation in Bombay:
(Report by Consul Shaw, of Manchester) 268
Silk market of Lyons:
(Report by Consul-General Peixotto) 272
The wine crop of France for 1881:
(Report by Consul Roosevelt, of Bordeaux) 279

CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

FEBRUARY, 1882.

AMERICAN TRADE WITH WINNIPEG.

REPORT BY CONSUL TAYLOR.

The large preponderance of importations into this consulate from the United States, reported by me for the year ending June 30, 1881, ($1,496,986 from the United States against $503,937 from Great Britain and $10,052 from other countries), was even more remarkable during the quarter ending September 30, 1881.

The aggregate of American imports was $613,406; from Great Britain, $177,167; from other countries, $3,211. total, $793,784.

The importation for the corresponding quarter of 1880 was $314,908, of which $239,998 was from the United States. If the next three quarters exhibit a similar ratio of increase, the foreign importations for the year ending June 30, 1882, will exceed $3,000,000.

To illustrate the general nature of this trade, I have selected the following leading articles:

Articles.	Value.	Whence imported.		
		United States.	Great Britian.	Other countries.
Ale	$1,309	.....	$1,309	.....
Animals	.....	.....	.....	.....
Horned cattle	16,612	$16,612	.....	.....
Horses	21,285	21,285	.....	.....
Sheep	2,154	2,154	.....	.....
Swine	2,867	2,867	.....	.....
Baking powder	3,156	3,131	5	.....
Books	1,246	1,021	107	France, $118
Grain, oats	16,666	16,666	.....	.....

Articles.	Value.	Whence imported.		
		United States.	Great Britain.	Other countries.
Wheat flour	$1,722	$1,722		
Candles	1,562	1,491	$64	$7
Carriages	1,050	1,050		
Sleighs	2,618	2,618		
Coal:				
Anthracite	9,921	9,921		
Bituminous	2,948	2,948		
Cotton manufactures	49,925	14,315	35,610	
Drugs, &c.	2,140	1,630	510	
Fancy goods	4,576	536	4,040	
Flax manufactures	6,212	1,300	4,912	
Fruits:				
Green	11,905	11,905		
Canned	4,084	4,084		
Glass manufactures	4,420	3,800	620	
Iron:				
Manufactures	67,791	62,980	4,811	
Steel	11,752	4,240	7,512	
Leather manufactures	5,600	4,280	780	
Gas, coal-oil	1,478	1,478		
Lard	2,660	2,660		
Bacon	54,700	54,700		
Pork	6,384	6,384		
Silks	12,566	380	1,286	
Spirits, wines	3,302	340	1,722	France, $1,100; Holland $140.
Tea	14,878	7,565	7,313	
Tents	5,537	4,388	1,149	
Tobacco manufactures	5,441	5,441		
Wood manufactures	167,611	167,554	57	
Wool manufactures	78,677	1,902	76,775	
Other articles	187,784	166,498	18,675	1,846
	793,784	613,406	177,167	3,211

The exports for the same period were $250,383, all but $7,332 of which were undressed furs. The shipment of furs was mostly to England, the Hudson Bay Company exporting to London $230,048.

The duties received in the Winnipeg district by the Canadian treasury for the quarter ending September 30, were $172,355.74 against $68,672.05 in 1880. During the late month of November, $60,985.86 in duties were received against $17,769.68 in November, 1880. The domestic importations from Eastern Canada, passing free of duty in bond through the United States, show a corresponding increase, although the aggregates have not been tabulated at the custom-house. Their amount for the year ending June 30, 1881, was $5,351,655; for the current year they will not be less than $7,000,000, while the foreign importations have already been estimated at $3,000,000. Add $1,000,000 of exports, as indicated by the last quarterly return, and the aggregate of Manitoba commerce for 1882 will be $11,000,000.

Fully half of the aggregate is incidental to railway construction and immigration, and explains the present extraordinary advances in real estate and labor wages..

JAMES W. TAYLOR,
Consul.

UNITED STATES CONSULATE,
Winnipeg, Manitoba, December 22, 1881.

THE IMPORTS OF AMERICAN PROVISIONS AT LEITH.

REPORT BY CONSUL LEONARD.

Since the end of September the trade in American hog products has been exceedingly quiet, with demand restricted to supply of immediate wants. Values declined steadily during October and first half of November, when there was a perceptible improvement. During December sales were small and prices unsatisfactory, though there was a marked improvement in both respects during last ten days of the month. The most remarkable feature of the trade has been the high price of fancy cuts of bacon relatively to hams.

In lard there has been a fair trade done at fluctuating prices. Quality has been in all respects up to the average, and calls for no remark except the troublesome frequency of "blood marks," *i. e.*, discolorations of the skin from clotted blood.

The new year opens with small stocks, a good consumptive demand for stuff on the spot, and a moderate inquiry for parcels on the way. Futures are not offered from America at prices likely to tempt into speculation.

If values continue about their present level there is every prospect of a satisfactory spring trade. Cheese has been depressed, with heavy losses on all stocks of secondary and early makes of fine factories, but available supply is now much reduced, and holders are firm in asking more money. Butter has also been dull. Holders of really choice creamery have managed to place their stocks at little or no loss, while secondary dairy butter and all descriptions of ladle-packed have been entirely supplanted by Dutch butterine, an article now in large consumption, and daily increasing in favor. American oleomargerine is selling badly at prices below those current for the finer qualities of butterine. Butterine is imported at prices varying from 7*d.* (14 cents) to 9½*d.* (19 cents) per pound. The price at which it could be sold by retail, as butterine, so as to leave a good profit to both importer and retailer, is from 10*d.* (20 cents) to 1*s.* (24 cents) per pound, but there is reason to believe that much of it is sold as genuine butter at higher rates than these.

Stocks of dairy produce are low as compared with last year, but there cannot be any considerable import of the staples from America before the early summer. Present wants are much more cheaply supplied from Ireland and the continent of Europe.

The sale of canned goods during the past year has progressed satisfactorily, and, on the whole, these goods are being more generally used by the British public, though, curiously, the upper classes are strangely ignorant regarding them. The principal consumers are the laboring classes; and it is not uncommon to see a laborer buy a tin of salmon for his dinner and eat it out of the tin. The consumption of salmon it is expected will be much larger this than in any previous year, owing to the mildness of the season and to the good state of trade generally, also to the scarcity and increased price demanded for compressed beef. A further reason which may operate in such respect is, that the difference in value of a tin of salmon as compared with compressed beef, which has had the nourishment expressed from it, is now being appreciated. Lobsters are a perfect drug, and the supply greatly exceeds the demand.

Packers make the mistake of shipping goods over on consignment, or under advances, and the goods are sold at a sacrifice; at 18*s.* ($4.38) per case of forty-eight one-pound tins large quantities have been sold,

and poor brands can be got at 17*s.* ($4.14) to 17*s.* 6*d.* ($4.26) per case—rates which cannot yield cost to the packer. American meats (other than compressed) are not generally in so good repute, owing to packers not paying proper attention to *quality*, which is most essential with the British public.

For fruits in tins there is no demand, though prices are moderate. Apple rings are in request, but buyers will not pay the high prices asked for them. The finest fruits are those which are packed on the Pacific coast. More attention appears to be given by these packers to quality of the fruit and to the labeling and other details.

J. A. LEONARD,
Consul.

UNITED STATES CONSULATE,
Leith, Scotland, January 20, 1882.

TRADE BETWEEN MAYAGUEZ, PORTO RICO, AND THE UNITED STATES.

REPORT BY COMMERCIAL AGENT HUBBARD.

IMPORTS FROM THE UNITED STATES.

Formerly it was the custom to report the total imports at this port, but during several years past this has been attended by inaccuracies which it was impossible to overcome. This year I have taken pains to obtain correct tables, but the difficulties attending it proved too great and I reluctantly have to omit them, making up only the imports from the United States, of which I have the data of the general articles, and can estimate properly the others.

The imports from the United States amount to $972,647.72 against $582,067.44 for the fiscal year ended September 30, 1879, when I formerly held this office as a consular agency.

This increase is due partly to the item of specie, which I estimate to be about $210,000, which item was not calculated in former reports, and partly to the fact that goods are now worth considerably more than at that time.

In the actual quantities imported there has been little, if any, increase.

TOTAL EXPORTS.

The exports from this port to all foreign countries amounted to $3,243,522.07. This figure is about the same as that for the fiscal year ended September 30, 1879. A great deal more coffee has been exported, but at a less value, and less sugar at a higher value, making about an equal general average.

In the following table of exports since 1875, the statistical position of our different articles of export will be clearly seen:

Fiscal year ended September 30—	Sugar.	Molasses.	Coffee.
	Pounds.	*Gallons.*	*Pounds.*
1875	25, 219, 000	1, 251, 487	10, 644, 100
1876	22, 349, 000	1, 015, 995	10, 978, 400
1877	13, 930, 600	697, 990	5, 506, 900
1878	27, 594, 830	1, 115, 774	5, 961, 855
1879	21, 296, 600	907, 991	11, 727, 361
1880	20, 841, 600	943, 855	7, 649, 500
1881	16, 888, 250	697, 925	15, 539, 925

NAVIGATION.

A continued increase in the number and tonnage of steamships visiting this port was noted, and, for the first time, a decided decrease in sailing vessels.

These facts will be more clearly seen by the table below, in which I am unfortunately obliged to omit the fiscal year 1880, the incumbent of this commercial agency during that period having, I regret to say, made no trade report, nor left on record any data from which it can now be made.

VESSELS ENTERED.

Fiscal year.	Steamers.		Sailers.	
	Number.	Tons.	Number.	Tons.
1875	157	90,038	247	44,340
1876	176	113,049	238	42,451
1877	209	154,640	206	34,105
1878	207	173,884	234	41,435
1879	235	190,570	243	41,114
1881	308	256,036	156	29,780

STEAM COMMUNICATION WITH THE UNITED STATES.

Of American sailing vessels I present the following figures, by which it will be seen that the trade with the United States under the American flag is continually decreasing:

Fiscal year.	Number.	Tons.
1875	113	21,492
1876	89	16,558
1877	69	12,241
1878	83	15,465
1879	70	13,140
1880	54	10,028
1881	52	8,270

Of 308 steamers that have visited this port, 174 were Spanish, 97 British, 24 French, 13 German, and no American; while of 156 sailing vessels only 52 were American, and those represent only a little over one-quarter of the total tonnage.

This decrease in our tonnage and shipping is deplorable, and I may be allowed to trust very earnestly that an arrangement will be made with Spain, concerning the differential duties of flags, by which the trade with the United States will be reverted to its proper channels.

Two lines of steamers continue to run between New York and this island. The Quebec and Gulf Ports Steamship Company runs one steamer between crops, and two during crops, touching at no other island than this, and generally securing full freights on both the outward and homeward voyages. The Atlas line has changed its plans, and at present runs two small steamers under the Spanish flag, which, on account of the differential duties, are always full coming out, but cannot return to the United States with the products of this island, on account of the extra duties under that flag; so they proceed to Venezuela and Hayti to load. This line will, I suppose, send here other steamers under the British flag to load for New York during the crop. The steam carrying-

trade between New York and this island is therefore all done under the British and Spanish flags, and the service cannot be called a strictly first-class one, particularly between crops. Lately the above companies informed their agents here that certain of their steamers would proceed to this island on given dates, and the merchants upon learning this telegraphed at considerable expense for such merchandise as they required. Subsequently the dates of departure were postponed for a number of days, and the merchants were left with large invoices on storage for their account, purchased at such prices as had been ruling, but which at a later day might have been bought at lower rates.

These irregularities are also of great inconvenience and annoyance in connection with the mail service. Obligations are incurred for certain mails, and when they become due it is impossible to cover them except by cable, which is expensive, and by no means so satisfactory.

STEAM COMMUNICATION WITH EUROPE.

The European steamship companies are constantly increasing their communications with this island, particularly the Spanish, and new plans and combinations with European countries, especially Spain and England, and with the neighboring West India islands, are continually being formed. I regret the non-participation of the United States steamship companies in these combinations for the development of the resources of this colony, and I trust that the day is not far distant when our flag will again assume its legitimate position of preponderance in these waters so close to our own shores.

In my next table of navigation the number of British steamships will be greatly decreased, and the Spanish still further augmented, because the branch line of the Royal Mail Steamship Company to this island has been discontinued, and the steamer that made that service, touching at this port four or five times monthly, has been sold to a Spanish company formed in St. Johns, Porto Rico. She is now employed in the coasting trade, touching in here four times a month, and the company now owning her makes the connections for mails, freight, and passengers twice a month with the Royal Mail steamers in St. Thomas, that company binding themselves not to put any steamer on this route.

EXPORTS TO THE UNITED STATES.

The exports from here to the United States compare favorably with those of preceding years, but I would remark that the article coffee, which shows a total figure of $330,757.73, is not sent to the United States for consumption, but for transshipment to Europe, the New York steamers taking it here under through bills of lading to its European port of destination. I estimate that only about $30,000 worth of coffee was exported to the United States for use there, and deducting $300,000 from the sum total of the exports, there remains as the real exports to the United States $662,991.24, which is about the same as for the fiscal year of 1879, when the total exports to the United States amounted to $644,114.53.

GORHAM E. HUBBARD,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Mayaguez, Porto Rico, December 31, 1881.

Table of imports from the United States at Mayaguez, Porto Rico, during the year ended September 30, 1881.

Articles.	Quantities.	Market value in Mexican dollars.	Duties in Mexican dollars.
Flour ..... barrels..	12,501	156,534 00	34,551 77
Flour ..... bags..	30		
Pilot bread ..... barrels..	987	4,441 50	1,395 82
Wrapping paper ..... reams..	60,747	30,373 50	7,897 11
Lard ..... pounds..	901,300	126,234 00	30,283 68
Leaf tobacco ..... do....	30,700	6,140 00	1,396 85
Hams ..... do....	107,400	22,554 00	4,338 96
Chewing tobacco ..... do....	15,840	4,276 80	896 44
Tallow candles ..... do....	156,600	25,772 00	6,124 64
Shooks ..... bundles..	21,200	40,280 00	5,724 00
Pork ..... barrels..	3,356	87,256 00	13,826 72
White-pine boards ..... feet..	292,000	8,760 00	1,203 04
Pitch-pine lumber ..... do....	1,151,000	37,983 00	4,741 12
Guano ..... barrels and bags..	603	4,037 00	Free.
Empty trunks ..... nests..	60	210 00	54 00
Crackers and biscuits ..... boxes, kegs, and tins..	3,410	5,967 50	2,058 09
Oats ..... barrels..	250	875 00	187 50
Cheese ..... pounds..	77,120	16,966 40	2,490 33
Bacon ..... do....	8,000	1,200 00	114 00
Family beef ..... kegs..	334	1,419 50	100 20
Soup paste ..... boxes..	1,352	1,774 50	365 04
Beans (white and red) ..... barrels..	1,185	15,405 50	2,666 05
Grindstones ..... stones..	587	352 20	234 80
Pepper ..... bags..	133	3,990 00	618 45
Butter ..... pounds..	76,100	15,981 00	3,272 30
Beer ..... barrels and boxes..	102	612 00	318 24
Potatoes ..... barrels..	845	3,168 75	473 20
Apples ..... do....	116	696 00	66 12
Kerosene ..... gallons..	61,500	25,830 00	14,145 00
Epsom salts ..... boxes..	116	609 00	23 20
Corn meal ..... barrels..	3,005	16,527 50	3,756 25
Pease ..... do....	297	1,656 00	465 75
Soap ..... boxes..	385	1,203 12	584 79
Florida water ..... do....	365	1,551 25	373 75
Smoked herrings ..... do....	104	20 80	78 00
Hoops ..... bundles..	3,126	7,718 40	886 23
Oysters ..... boxes..	25	87 50	10 75
Brooms ..... dozen..	150	300 00	51 00
Pails ..... do....	30	60 00	46 80
Shingles ..... do....	20,000	70 00	27 40
Rosin ..... barrels..	210	1,470 00	170 10
White sugar ..... do....	50	1,900 00	1,100 00
Tallow ..... tierces..	33	1,221 00	231 00
Tubs ..... nests..	10	50 00	15 00
Corn ..... bags..	400	965 00	348 00
Onions ..... barrels..	37	148 00	19 83
Specie (Mexican sun dollars) estimated ..... do....	.....	210,000 00	Free.
Hardware ..... do....	.....	25,000 00	5,500 00
Woodenware and sundries ..... do....	.....	18,000 00	4,860 00
Machinery ..... do....	.....	15,000 00	2,250 00
Drugs ..... do....	.....	28,000 00	6,800 00
		972,647 72	177,141 25

Statement showing the value of the declared exports from this commercial agency to the United States, in Mexican dollars, for the four quarters of the year ended September 30, 1881.

Articles.	December 31, 1880.	March 30, 1881.	June 30, 1881.	September 30, 1881.	Total.
Sugar	.....	102,100 00	174,890 03	33,762 79	310,752 82
Molasses	11,515 52	93,108 33	108,285 84	64,563 70	277,473 39
Coffee	11,652 52	148,492 24	144,604 70	26,008 27	330,757 73
Oranges	20,654 06	7,605 72	3,663 72	.....	31,923 50
Pineapples	.....	23 72	2,428 49	.....	2,452 21
Cocoanuts	1,646 05	852 01	192 48	574 24	3,264 78
Tortoise-shell	696 35	.....	.....	.....	696 35
Spices	131 21	.....	.....	.....	131 21
Hides	97 50	626 00	805 62	.....	1,529 12
Honey	49 95	46 12	43 25	121 65	260 97
Achiote	.....	336 25	89 20	51 48	476 93
Sundries from Wreck	.....	800 00	.....	.....	800 00
Old metal	.....	141 80	.....	.....	141 80
Annatto	.....	.....	210 52	.....	210 52
Cigars	.....	.....	80 77	.....	80 77
Satinwood	.....	.....	.....	1,645 63	1,645 63
Returned cargo	327 13	.....	.....	66 38	393 51
	46,770 29	354,132 19	435,294 62	126,794 14	962,991 24

Statement showing the navigation of the Port of Mayaguez, Porto Rico, during the year ended September 30, 1881.

ENTERED.

Flag.	From or to—	Steamers.		Sailers.		Total.	
		No.	Tons.	No.	Tons.	No.	Tons.
American	United States, West Indies, and coast	.....	.....	52	8,270	52	8,270
British	Europe, United States, Canada, West Indies, and coast.	97	88,450	49	8,666	146	97,116
	In port October 1, 1881	.....	.....	.....	.....	.....	.....
Spanish	Europe, United States, West Indies, South America, and coast.	174	131,950	37	8,521	211	140,471
	In port September 30, 1880	.....	.....	2	377	2	377
	In port October 1, 1881	.....	.....	.....	.....	.....	.....
French	Europe and West Indies	24	17,922	1	300	25	18,222
German	....do	13	17,714	1	268	14	17,982
Italian	....do	.....	.....	7	1,682	7	1,682
Norwegian	....do	.....	.....	5	1,432	5	1,432
Danish	....do	.....	.....	1	250	1	250
Dominican	San Domingo	.....	.....	1	14	1	14
Total		308	256,036	156	29,780	464	285,816

CLEARED.

Flag.	From or to—	Steamers.		Sailers.		Total.	
		No.	Tons.	No.	Tons.	No.	Tons.
American	United States, West Indies, and coast	.....	.....	52	8,270	52	8,270
British	Europe, United States, Canada, West Indies, and coast.	97	88,450	48	8,524	145	96,974
	In port October 1, 1881	.....	.....	1	142	1	142
Spanish	Europe, United States, West Indies, South America, and coast.	174	131,950	36	8,193	210	140,143
	In port September 30, 1880	.....	.....	.....	.....	.....	.....
	In port October 10, 1881	.....	.....	3	705	3	705
French	Europe and West Indies	24	17,922	1	300	25	18,222
German	....do	13	17,714	1	268	14	17,982
Italian	....do	.....	.....	7	1,682	7	1,682
Norwegian	....do	.....	.....	5	1,432	5	1,432
Danish	....do	.....	.....	1	250	1	250
Dominican	San Domingo	.....	.....	1	14	1	14
Total		308	256,036	156	29,780	464	285,816

PROTECTION TO AMERICAN INVENTIONS IN SWITZERLAND.

REPORT BY CONSUL MASON, OF BASLE.

It is known to this consulate that many American inventors and proprietors of patents pertaining to the manufacture of silks, watches, and embroideries are anxiously awaiting the enactment of law in Switzerland for the protection of property in inventions before introducing their discoveries here, and so many earnest inquiries have been received asking for information on this subject that it has been deemed proper to submit to the Department a brief sketch of the patent-law movement in Switzerland and a statement of the present status of the measure which the advocates of protection to inventions are preparing to enact.

The approaching national exhibition to be opened at Zürich in May, 1883, gives to this whole subject an especial importance at this time, and I shall hope soon to be able to report that the Swiss Confederation, whose citizens use many inventions of American origin, has guaranteed future protection to all property of that nature by enacting a competent law.

During the past twenty years there has been felt and expressed in this country a growing sentiment in favor of the protection of property in inventions by a federal statute similar in its provisions to the patent laws which have long prevailed in most other civilized nations.

This sentiment has found expression, not only in the public journals, but through numerous and elaborate memorials and petitions from the various important commercial and industrial organizations of this country, among which may be named the "National Association of Engineers and Architects," the "Commercial Society of Zürich," and the "Society of Trade and Industry," particularly the chapter which represents the manufacture of laces and embroideries in the district of St. Galle.

Besides the formal memorials of these associations, there is on file at Berne a great mass of petitions from individual artisans and manufacturers asking protection for special inventions, models, or processes, and it is a matter of common record that for want of the protection thus vainly invoked, many of the leading inventors and mechanics of Switzerland have emigrated to other countries, where the fruits of their ingenious industry could find protection by law.

Accordingly, on the 14th of March, 1877, the federal house of representatives, by unanimous resolution, addressed to the high federal council a request that it should formally examine the whole subject of a law for the protection of property in patents, particularly in relation to mechanics and agriculture, and, if found advisable, submit definite suggestions for a statute embodying the necessary provisions.

After a full investigation, which included an examination of the trade-mark and patent laws of other countries, the federal council, on the 8th of February, 1881, submitted a lengthy report, the conclusions of which were in substance:

That while it was beyond all doubt in harmony with the interests of Swiss inventors, as well as the relations of the confederation with other countries, that a comprehensive patent law should be enacted, the legal authority to extend protection to inventions was confined by the terms of the present federal constitution to the individual cantons, and that the constitution of May 29, 1874, did not empower the confederation to legislate on that subject.

The effect of this decision was to put into temporary abeyance the already well-incubated patent law, but the pressure in favor of its adop-

tion was so strong and determined that the high federal council, on the 20th of June, 1881, addressed to Congress a supplementary report, recognizing the irresistible demand for a federal patent law, and pointing out the one obvious way to such an enactment, viz, through the adoption of an amendment to the federal constitution empowering the confederation to legislate upon that subject. Accepting this suggestion, the Congress, by joint resolution, addressed to the council the following proposition:

The federal council is invited to present the draft of an amendment to the federal constitution, which shall authorize the confederation to legislate for the protection of inventions in agriculture and manufactures, as well as of designs and models.

In response to this invitation, the federal council, on the 26th of November, 1881, submitted to Congress the following proposed amendment to the federal constitution:

1. There shall be added to the constitution of May 29, 1874, the following clause:
ARTICLE 64 *bis*. "The confederation shall have the power to legislate for the protection of inventions in the departments of industry and agriculture, as well as for the protection of designs and models."
2. This amendment shall be submitted for approval to vote of the people and to the ratification of the several cantonal governments.

This proposition is now before the federal assembly, having already passed the lower house of Congress, and will probably be adopted by the senate during the February session. The next step will be to submit it for ratification to a popular vote, and likewise to the twenty-two cantonal governments. An affirmative majority *of the popular vote cast* and the concurrence of not less than twelve of the cantonal governments will be required to establish the proposed amendment as a part of the fundamental law. No serious opposition is apprehended in either case, public opinion being either indifferent, or, if interested, strongly in favor of the protective principle. So strong is the probability of the success of the amendment that a comprehensive patent law is in preparation for enactment under its authority. This measure, although not yet formally presented, has been carefully constructed upon the statutes and experience of other countries, particularly Great Britain and the United States, and it may be expected to finally embody all the essential principles which are recognized in the patent laws of our own government.

This amendment to the Swiss constitution, and the resulting statute, will receive an important impetus from the fact that the Swiss National Exposition, which is to be opened at Zürich in May of next year, will depend largely for its success upon the existence of a competent patent law before and during that exhibition.

It is intended that the exposition shall be a complete exibit of all that Switzerland has invented or adopted in the manufacture of silks, cottons, straw goods, watches, embroideries, chemical colors, instruments of precision and other goods in the production of which this country has attained such lucrative proficiency. Many of the processes involved in the manufacture of aniline colors, watch materials, and textile fabrics are either secret, or are accomplished by machinery invented in this country and carefully screened from observation. The period during which exhibits for the exposition of 1883 may be entered is limited to the 31st of March, 1882, and unless there should be before that time an assured prospect of a law that will protect all exhibitors from copying and infringement, the exposition will be practically shorn of the valuable novelties which should be its first and highest purpose to develop and display.

From the foregoing facts and the best information that can be at-

tained from official sources, it is the opinion of this consulate that a comprehensive and liberal patent law for the protection of property in models, inventions, and designs, whether presented by native Swiss citizens or aliens, will be enacted and in operation throughout Switzerland within a year from the present time, and probably within six months.

FRANK H. MASON,
Consul.

UNITED STATES CONSULATE,
Basle, January 13, 1882.

TRADE OF LAMBAYEQUE, PERU, WITH THE UNITED STATES.

REPORT BY VICE-CONSUL LAPOINT.

With the view of enlarging American trade in this consular district, I may call the attention of our manufacturers to the following facts. Shirtings, sheetings, calicoes, and printed cotton goods of American manufacture are preferred to the European; but the heavy freights from the United States to Peru daily diminish the consumption; therefore European goods are fast driving American ones out of this market. The same can be said of hardware.

Lard, which is one of the principal articles of consumption, is introduced via Hamburg, on account of the high freights from the United States, and it is astonishing that the United States, being so much nearer, American manufactured goods and produce can arrive here cheaper by going first to Europe and thence through the straits of Magellan here.

Another reason for the fall in the imports from the United States is bad packing, of which merchants are continuously complaining, and show a difference of 10 per cent. in the cost of freights in favor of the European.

Quite an important trade could be done with this consular district, which is in one of the richest agricultural parts of Peru, and to form an idea of its produce during the year 1881, taking in consideration the war, lack of laborers, and the Chilian occupation, there have been exported from this province of Lambayeque, only (which forms a fourth part of the consular district) 275,000 quintals of sugar and 180,000 quintals of rice; the other provinces of Ancahs, Libertad, Loreto, Piura, and Amagonas produce almost as much as this.

American manufactures are, I repeat, preferred to any others; for instance, all the sugar mills are principally from Messrs. Lake, Merrick & Sons, of Philadelphia, the railroad engines from Baldwin, Philadelphia, and cars from Troy, N. Y. But in order to enlarge our trade with Peru cheap freights must be sought and good and careful packing obtained, illustrated price lists sent, and should an enterprising sugar-machinery-building firm send out here, and in fact throughout the whole of Peru, an intelligent agent, I am satisfied they would obtain a pecuniary success.

Another item, which appears strange to the exporting public in general, is the absence of American vessels; for instance, this year only one American vessel has made its appearance here for cargo, against hundreds of ships carrying different flags. And should a line of American steamers run along this coast, from Panama to Callao, and even down to Valparaiso, Chili, at twenty-five per cent. reduced freights from the

actual Pacific Steam Navigation Company's (English) tariff, which is from here to Callao, a distance of three hundred miles, $8 per ton of 40 cubic feet, or 20 cents per cubic foot, they would not alone obtain the preference on an equal tariff; but it is almost certain that the investment would be lucrative. These steamers should be of good loading capacity; and as the sea is throughout the year at a dead calm, the trips could be made safely, and even at fixed hours and dates of arrivals and departures.

ALFRED LAPOINT,
Vice-Consul.

UNITED STATES CONSULATE,
Ghiclayo, Peru, December 23, 1881.

TRADE BETWEEN CANADA AND THE UNITED STATES.

REPORT BY COMMERCIAL AGENT HIBBARD, OF GODERICH.

There has been a marked increase of exports from this locality, particularly horses, sheep, and barley; also of the less important ones, which heretofore were so limited as not to be specially noticed, are now reaching a considerable volume, such as hides, butter, &c. Now, with all the restrictions and duties imposed by our government this country seems, so far as my limited observation can determine, to be able to find a paying market with us for many of the farming products, probably on account of the rapid growth of population in the Eastern States and the short and cheap transportation thereto. One special feature in the exports here is the large increase in the export of dairy salt.

While noticing the exports to our own country, and the increasing trade between the United States and Canada in many respects, I can hardly avoid directing your attention to the extraordinary growth of the cattle trade between this country and Great Britain, and the almost unprecedented development of the Canadian northwest, which is said to be as fine a grazing and grain-growing country as exists on the American continent. Many of the merchants and men of capital are daily leaving this vicinity to make investments in Winnipeg and other cities situated on the line of the Central Pacific Railroad, which is controlled by a wealthy syndicate and being pushed with a vigor and persistency only equaled in the construction of our own great transcontinental lines. A large amount of American capital is also finding its way into those places, and so far is this the case that visitors speak of the city of Winnipeg in particular as being in a business way very like our own fast-growing Western cities.

CANADIAN WRECKING LAWS.

In my last annual report I briefly noticed the inconvenience of the wrecking laws and of the desirability of reciprocity in this direction. While the wrecking companies of Canada are still in their infancy, and Canadian as well as American tonnage meeting with disasters in Canadian waters suffer greater inconvenience from the scarcity of Canadian tugs, this cannot long remain so. A large company is now being formed on Lake Ontario, and had our government seen fit to take the initiative I believe that the Government of Canada would have gladly met them on this important matter, and with freedom of action for our large and

powerful tugs, the Canadian wrecking companies would have become obsolete, and our wreckers would have derived a large and lasting benefit.

THE CARRYING TRADE BETWEEN CANADA AND THE UNITED STATES.

In regard to the carrying trade between the United States and this country, Canadians are making strenuous efforts to retain at least their share of it.

The Midland Railway Company have now an elevator at Midland, near the southern extremity of the Georgian Bay, capable of discharging a vessel of 40,000 bushels capacity in six hours, and extending their line of road to Belleville, on Lake Ontario, where they will have a fleet of barges to transport the grain to Montreal, thus making another port with same facilities of Kingston, and saving a distance of some 300 miles of transportation. This route, with the new Welland Canal, places Canadians in a much better position than formerly.

JOHN HIBBARD,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Goderich, Canada, December 31, 1881.

TRADE OF THE UNITED STATES WITH GEESTEMUNDE-BREMERHAVEN.

REPORT BY CONSUL CANISIUS.

The principal merchandise which arrived in Geestemünde-Bremerhaven during the last quarter, consisted of cotton, grain, petroleum, and raw tobacco (from the United States), of which in October last, 19,490 tons, in November 23,305 tons, and in December 25,200 were forwarded from here by rail to the interior. The importation of live hogs from the United States has entirely ceased and the import of pork and lard has been considerably less than last year—the reason of which is supposed to be the high price which these articles obtain in the States. The official report of the State Department concerning the trichinosis in American bacon and ham has been of sufficient influence to re-establish among the people their former faith in the wholesomeness of American meats brought into this country, and therefore the reason of the immense falling off in the importation of this class of goods can only be found in the high price which it commands in the States, making it, consequently, unprofitable to the German merchants to buy such merchandise in our markets.

Besides the decrease in the import of the above-named goods into Germany, the importation of half-tanned leather, and also of glassware, had almost entirely ceased. I have endeavored to ascertain the reason, but have not been able to find any except the high import duty put on glassware in 1879 by the passage of the new tariff, although this class of goods manufactured in the United States is considered excellent and cheap. Still, the high tariff has apparently made its importation impossible. The tariff on glassware of all kinds is from $0.71 to $7.14 per 200 pounds, and the German Government seems to endeavor each year to imitate, more and more, our high protective tariff, although the vast majority of Germans are free-traders like the English. Prince Bismarck once replied to his opponents in the German Parliament that he did

not pursue a reactionary policy in this respect, for he proposed to imitate, in respect to import duties, the freest countries known—namely, France and the United States, which had a higher import tariff than any other country on earth. Last year he also passed an amendment to the import duty on flour, increasing it from 2 marks to 3 marks per barrel. This also has had the effect of materially decreasing the importation of flour from America into Germany. This new policy, which has now been in effective existence since July 15, 1879, has, if we may judge by the decrease of imports from other lands into this, a beneficial influence upon the manufacturing, and, I suppose, also upon the agricultural interests of this country. Yet if the policy which we have upheld since the war involved us in a vast national debt be adopted in other countries also, the effect upon our manufacturing interests will be anything but good, as the decrease of imports from the United States into Germany clearly shows. No statistical reports of the imports into Geestemünde during the last three months are at hand. Still I can state this much, that the import from the United States of merchandise of all kinds (except cotton and petroleum) has also decreased considerably. The two staple articles, cotton and petroleum, have in both ports—Geestemünde and Bremerhaven—been about as largely imported as last year, and a decrease therein need not be feared, although the import duty on petroleum is now 6 marks, or $1.42 per 200 pounds.

Leather, which used to constitute quite a large import from the United States, has been, as I already stated, almost entirely excluded from the German market since the new import duty came in force, and which ranges from seventy-one cents up to $23.80 per 200 pounds. Half-tanned leather of all kinds, however, only pays seventy-one cents import duty. Other articles, such as hardware, for instance, have been affected by the new tariff in the same manner as the articles named.

THEODORE CANISIUS,
Consul.

UNITED STATES CONSULATE,
Geestemünde-Bremerhaven, January 10, 1882.

Statement showing the value of declared exports from the consular district of Geestemünde-Bremerhaven to the United States during the quarter ending December 31, 1881.

	Value.
Barrels	$109,405 00
Beer	1,750 28
Birds	23,139 91
Braids (straw)	445 30
China and clay goods	629 05
Clothes (ready made)	2,430 97
Liquors	2,895 13
Miscellaneous	142 26
Salts (manuring)	3,028 57
Steel rods	20,958 28
Vegetables	3,950 66
Wine	102 78
Total in United States gold	168,878 19
Same quarter, 1880	72,286 00
Increase	96,592 19

AMERICAN VS. GERMAN PETROLEUM.

REPORT BY CONSUL CANISIUS, OF GEESTEMÜNDE-BREMERHAVEN.

The number of barrels of American petroleum shipped to and now lying in the storehouses at the principal continental ports, up to December 30, 1881, is as follows:

Name.	1881.	1880.
	Barrels.	*Barrels.*
Bremerhaven and Geestemünde	561, 831	692, 617
Antwerp	359, 634	162, 127
Hamburg	76, 837	125, 246
Amsterdam	79, 206	82, 245
Rotterdam	51, 512	36, 229
Stettin	36, 697	51, 784
Danzig	51, 141	28, 120
Total	1, 216, 858	1, 148, 668

From the foregoing it will be seen that the import of petroleum was less by 130,786 barrels during 1881 than 1880. This was not in consequence of smaller consumption, but of the immense speculation which took place in 1880, the result of the new law which was to be passed in the German Parliament, and to come into force at a certain date; but before it came into effect, and even at the time already when it was only thought that Prince Bismarck intended to pass such a law, petroleum buyers hastened to get into these ports as many barrels as they could place in the vast oil-sheds of these two harbors.

In a former report I already mentioned that a Mr. Mohr and others had discovered, on the Lunneburger Heide, considerable quantities of petroleum, the fountains of which, according to the enthusiastic ideas of the Germans, were so extensive and inexhaustible that this vast heath would in a short time not only supply the Teutonic fatherland with petroleum, but also largely furnish foreign countries.

The furore which swept Germany at this discovery has apparently subsided for good. Several dealers in oil, and also other persons here, inform me that the refined oil distilled at Oilheim did not burn as well as the American, and when burning smoked to such an extent that it is impossible to use it in dwellings. From these facts we may safely conclude that the anticipated annihilation of the American export of petroleum to Germany is still far distant.

Formerly the import of petroleum, as already stated, was free, but now it is $1.42 per 200 pounds. Probably Prince Bismarck would like to increase this import duty, but the German Parliament would scarcely sanction it, for even the humblest hut in the country is lighted by this oil, and a new increase of duty thereon would affect the purse of the poor much more than that of the rich, who use gas wherever it can be obtained. The endeavors of the imperial government to make the importation as well as the manufacture a state monopoly, as it is in Austria and France, will most decidedly fail according to present appearances, the Liberal party being almost unanimously against it, while the Ultramontanes, as well as the Conservatives, will also furnish enough votes to the free-traders to defeat such a measure, at least in the present Par-

liament. This, however, will not deter the great chancellor from renewing the proposed measure whenever a favorable opportunity offers.

THEODORE CANISIUS,
Consul.

UNITED STATES CONSULATE,
Geestemünde-Bremerhaven, January 10, 1882.

WARNING AGAINST AMERICAN CLOVER SEED.

REPORT BY CONSUL ELFWING, OF STOCKHOLM.

Prof. H. J. Nathorst, an eminent agriculturist and principal of the agricultural college at Alnarp, near Malmo, in the south of Sweden, has issued an invitation to farmers to come and view two American plows now in use at Alnarp. One is a sulky plow for three and the other a gang plow for four horses. These plows, he says, are as prominent of its kind as the American horse rake or harvester, but not suited for small fields or stony ground.

At the same time he issues a warning against American red-clover seed. He says that it does not give more than one-fourth of Swedish or German clover seed, and that during hard winters it entirely freezes away. On account of its cheapness, it is, however, much used.

In the spring of 1880 there came to Copenhagen, direct from America, not less than 8,164 bags, and from another quarter 2,392 bags American clover seed. These 11,056 bags corresponded to more than half of what the whole country needed. Furthermore, he says that the seed is always imported "to order," so that no one knows who the importer is. In the Swedish city of Kalmar, of about 10,000 inhabitants, only American clover seed could be bought, and the case is nearly everywhere that most merchants sell only American clover seed, or seed mixed with such.

How common it is in Denmark may be seen by the following: 1875, of examined samples, 44 per cent. were American clover; 1876, 42 per cent.; 1878, 83 per cent.; 1880, 78 per cent., and it is nearly the same in Sweden.

He warns the farmers against this seed, and says it can readily be distinguished from the European partly by the particular seeds of weeds which it has, and partly by the size of the seeds. The weeds consist of ambrosia, plantago, and majoram. Concerning the size of the seed the following result has been obtained by sifting:

Number of seed per Danish pound.

	Sifted.	Not sifted.
In 100 German samples	278, 886	268, 000
In 30 Swedish samples	276, 740	.....
In 25 Danish samples	281, 254	.....
In 70 American samples	324, 000	.....
In 30 American samples	.....	310, 370
In 10 Canadian samples	318, 750	.....

Other trials show that of German red clover seed only 8 per cent. of 200 examined samples had more than 300,000 seed per Danish pound.

Of American seed 81 per cent. had more than 300,000 seed per Danish

pound, by which of a sample that has for instance 320,000 seed per Danish pound the seed must be American in 94 cases out of 100, and of a sample that has 278,000 seed per Danish pound the seed must be German in 95 cases out of 100. It is therefore best to avoid all very fine seed. Besides, to an experienced eye, the American seed has another color and gloss than the European.

In the field the American clover differs from the European by having hairy stalks with extended hairs; white clover has naked stalks or a few hairs lying close to the stalks.

I have reproduced this warning, as possibly American farmers might find it favorable to use German or Scandinavian clover seed.

NERE A. ELFWING,
Consul.

UNITED STATES CONSULATE,
Stockholm, November 11, 1881.

BRONZE POWDER AND LEAF METAL MANUFACTURE IN GERMANY.

REPORT BY CONSUL HORSTMANN, OF NUREMBERG, OF THE EFFORTS BEING MADE BY THE NUREMBERG MANUFACTURERS TO PREVENT THE EMIGRATION TO THE UNITED STATES OF THE WORKERS IN BRONZE POWDER AND LEAF METAL.

I have the honor to present herewith a translation of an article which has just appeared in the local papers of this place, urging workmen engaged in the manufacture of bronze powder and leaf metal not to emigrate to America with a view of pursuing their calling there. From the tone of the same it appears that the manufacturers here have been thrown into a state of excitement through the fear that they will soon be opposed in their line of business by a damaging competition on our side of the water.

The above-mentioned articles are largely manufactured in the cities of Nuremberg and Fürth, and their vicinity. Nuremberg alone has twenty-five factories devoted principally to the manufacture of bronze powder, and thirteen establishments producing leaf metal only. In Fürth there are thirteen firms which export said articles to the United States.

The following table shows the amount of bronze powder and leaf metal exported to the United States from this consular district for the years ending December 31, 1876–1881:

1876	$136,283 21
1877	147,616 25
1878	141,974 28
1879	200,722 19
1880	335,963 94
1881 (estimated)	500,000 00

It will be seen from the foregoing that the consumption of bronze powder and leaf metal is rapidly increasing in the United States. It is evident, therefore, that exporters as well as manufacturers of these articles should be anxious to maintain and to extend their branch of trade with our country. Leaf metal is not used as much as formerly, being to a great degree superseded in its application to the manufacture of wall papers, and for book-binders' purposes, and to fancy work in general, by bronze powder and brocade. The latter is the technical name of a

coarser kind of bronze, not ground to a fine powder, but merely reduced to particles.

The establishment of bronze factories in the United States, on a large scale, would interfere seriously with a branch of industry which has been carried on at this place from time immemorial, and which, as far as I am aware, is of greater extent than in any other country. It is natural, therefore, that the manufacturers here should view with suspicion and alarm any steps taken by us in producing an article which they have hitherto exported so largely, not only to us, but also to other countries.

The following is the newspaper paragraph in question:

TRADESMEN'S WARNING TO EMIGRANTS.

[Circular addressed by the committee of the association of German metal and bronze powder manufacturers at Nuremberg and Fürth to the workmen in those factories.]

You are aware that America has made attempts for several years past to induce workmen from here to go to their country, and to assist them in establishing factories for the manufacture of metal and bronze powder. Recently the Americans have succeeded in their attempts, inasmuch as several workmen went over with them, and several mechanics have furnished them with the necessary machines, hammers, &c.

Now, as other American agents have lately been roving around our neighborhood with the view of capturing workmen, we deem it our duty to call your attention to the danger which threatens not only us, the manufacturers and employers, but also the workmen themselves, if our articles were to be made in America in large quantities, and we put this fact for your consideration, that both he who engages himself for America, as well as he who stays at home, will suffer greatly if our branch of industry were weakened by American competition.

High wages are promised to those who engage themselves for America, which, however, are not proportionately equal to those paid to a good workman in this country, as all the necessaries of life there are twice as dear as with us.

But how long, if at all, will these promised high wages be paid? Surely, only as long as our workmen are needed to instruct the Americans in their work; for America has hands enough of its own, who, brought up in that land, are able to work and to live cheaper than we. As soon as the Americans have learned enough from us they will dismiss the Germans taken along with them, or they will compel them to work for wages on which they can barely exist. The workmen who remain at home, as well as their employers, will suffer thereby. There is already an overproduction in our articles, but if once our export to America were reduced, or were to cease entirely, owing to the establishment of factories in that country, great changes in our manufacture, at the expense of workmen's wages, would be inevitable.

The reduced demand for our articles will at once depress the condition of wages, and our workmen, who have heretofore been well off, will be compelled to accept a reduction. Yes, it may even come to this—that firms at present working exclusively for America will have to cease manufacturing entirely, and to dismiss their hands. It is, therefore, to the interest of both workman and manufacturer that our branch of industry be upheld, and each one of you should do all in his power to contend against foreign competition, and thus to ward danger from yourselves and from us. Workmen, mind what you are about; remain at your posts; induce your comrades to act in the same manner; and bear in mind the old proverb, "Stay at home, and earn your living honestly."

It is not in place for me to make any remarks upon the above; it clearly shows that there exists a feeling of apprehension on the part of the manufacturers here; but I must say, in conclusion, that I see no reason why we should not be able to successfully compete in these articles, both as regards quality and price, with any other nation.

G. HENRY HORSTMANN,
Consul.

UNITED STATES CONSULATE,
Nuremberg, November 28, 1881.

AMERICAN COAL-TAR PITCH WANTED.

REPORT BY COMMERCIAL AGENT GIFFORD, OF NANTES.

I have the honor to inclose a translation of a portion of a letter which I have received from the director of Mr. Charles Goddard's extensive manufactories of "patent fuel" at this place, at Tours, at Les Sables, and at St. Nazaire. The writer wishes the contents of his letter to be communicated to the merchants of the United States, and as the matter seems to be of general interest I have thought that the Department might deem it proper to give publicity to the facts.

Mr. Goddard's proposition is intended to open a market for a large quantity of pitch manufactured from coal-tar. It seems quite probable that this article could be sent from the United States at remunerative prices, owing to the absolute need of it for carrying on the business in which Mr. Goddard and many other capitalists are engaged.

GEORGE GIFFORD,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Nantes, December 10, 1881.

[Extract.—Translation.]

Mr. Goddard to Consul Gifford.

ST. NAZAIRE, *November* 29, 1881.

SIR: The pitch of which I make use in the manufacture of fuel from coal dust is not now to be had in sufficient quantities in Europe, and has, therefore, reached a high price. I have been told that large quantities of this substance exist in the United States, of which no use is made. I have thought, therefore, that the possessors of this material in the United States would be interested to know that they can now make a profitable sale of a substance which they have regarded as useless.

Under the circumstances, I have to ask you to have the kindness to bring this communication to the knowledge of the merchants of the United States in such a manner as to induce proposals from them. Such proposals will under the circumstances be most favorably considered.

For the moment I have need of five or six thousand tons, and this quantity is likely to increase greatly. I will accept it by cargoes of ten or fifteen hundred tons, or in smaller quantities by steamers or sailing vessels, as the shipper may desire.

The pitch which I use in my business should be made from the coal-tar produced in the manufacture of illuminating gas, from which 35 or 40 per cent. of oily matters and essences have been withdrawn. In this state it is a solid at ordinary temperatures, and melts at 50° or 60° *centigrade*. Calcined in a close vessel it yields from 50 to 60 per cent. of volatile matters. It must be free from all foreign substances.

CHEAP GERMAN MANUFACTURES THE RESULT OF CHEAP LABOR.

REPORT BY CONSUL WHARTON, OF SONNEBERG.

I am fully convinced that the most important method of increasing American trade, especially in regard to such articles as form the chief exports from this part of Germany to the United States, is to cheapen the price at which they are placed upon the market. We need no higher

proof that articles of German manufacture of like character and quality with those made and sold in the United States are cheaper than said articles than we find in the large and ever increasing shipments which are made to that country by German manufacturers, against the small imports brought hither, while the German manufacturers at the same time labor under the disadvantage of a tariff of 50 per cent. ad valorem imposed by our government, and an additional cost of 10 per cent. for handling. The importer of German goods in New York is compelled to add this 60 per cent. to the cost he pays in Germany for his goods, and yet the facts show that he is still able to cope successfully with the American manufacturers of these goods. By looking at the statements of declared exports from the Sonneberg district, it will be seen that they consist almost entirely of dolls, toys, china and glass ware, cotton hosiery, musical instruments, guns, seed, and plants; and yet all these articles are manufactured in the largest quantities in the United States. In order, therefore, that American manufacturers should increase their trade at home, as well as abroad, they must manage to diminish the price at which their goods are offered for sale. The great question is, How can this be done? I answer, first, by diminishing the cost of production; secondly, by diminishing the cost of transportation—two things that enter into the price of any article. First, then, the cost of production must be diminished. This can be done by cheapening labor. One reason why German articles are made so cheaply is labor is so plentiful and so cheap here. Compare the prices paid in the United States for skilled labor with the following table, which shows the prices paid here, and the correctness of this remark will at once be seen. For example, cabinet-makers receive per day, 70 cents; carpenters, 60 cents; blacksmiths, 60 cents; doll-makers, 50 cents to $1; females and children, 25 to 50 cents; glass-makers, 50 to 75 cents; glaziers, 60 to 80 cents; gun-makers, $1 to $2; kid glove makers, 50 to 75 cents; females 25 to 40 cents; machine sewers, 30 to 50 cents; locksmiths, 53 to 70 cents; painters, 60 to 75 cents; papier-maché makers, 50 cents; females, 25 cents; polish (French), 75 cents; tobacco pipe makers, 50 cents to $1; females, 25 to 50 cents; upholsterers, 70 to 75 cents; weavers, 40 to 50 cents. A most important industry is china-ware making, and the following is a schedule of prices: modellers and chief decorators, $1.50; decorators, 80 cents; formers and turners, 75 cents to $1; females, 36 to 60 cents; firemen, 60 to 75 cents; packers, 50 to 60 cents.

If laborers cannot be found in the United States, let our manufacturers import them; for there are thousands here living on mere pittances who would be only too glad to find employment in the United States. The laborers already employed there could be induced to work more cheaply if the German habits of living could be adopted by them. Here "as for their means, they husband them so well they go far with little." While articles of diet are dearer here than in America, the laborers manage to live on less. They eat meat but once a day, living chiefly on vegetables; their staple diet being rye bread and beer. They work ten hours a day, and sometimes twelve and even fourteen hours. Secondly, the cost of production can be diminished by lessening the cost of materials. Another reason why German articles are so cheap arises from the fact that all materials employed here, except, perhaps, wools and cottons, are much cheaper than in America. This is especially true of chemicals, so largely used in the manufacture of dolls, toys and, other painted goods. If our manufacturers cannot buy materials sufficiently cheap at home, let them buy them here in bulk and import them; and this course will obviate the difficulty, and soon result in the reduction

of the price of materials in their own land. Another thing to cheapen our manufactures is to encourage cottage industries, and discourage the idea that vast sums must be expended in brick and mortar in the erection of magnificent factories, which, in consuming the capital of the owners, at the same time increase the prices of the articles manufactured. Some of the most splendid and beautiful goods shipped through this consulate to America come out of the plainest warehouses, with nothing of an appearance of beauty about them save the glittering contrast presented by the beautiful wares they contain. Many old-fashioned, antiquated buildings are utilized as factories. Some of the largest and most complete sample-rooms I have seen, that bewilder you with their novel and attractive shelves, must be entered by rear doors, and by passing up dark and devious "break-neck steps." In these factories, there are no spaces left unoccupied; no waste room; no gorgeous counting-rooms; no useless ornamentation; everything conspiring to produce the best goods at the cheapest price. Manufacturers here also encourage cottage industry, so that nearly every little dwelling in the Thuringian Mountains is a miniature factory, where even the little children may be seen sitting in the door-ways plying their ingenious trades, while the father and mother are working in the fields, unless it be during a season of bad weather, when they too unite with the children in the "cottage industry."

In the second place the price of articles may be diminished by diminishing the cost of transportation. Here again German manufacturers have the advantage over their American brethren. Railroad freights are cheaper; and what I wish particularly to observe is the *common* or *dirt roads here are far superior to those in America.* One of the first things that strikes the American traveler here is the excellence of the roads, that resemble those seen in our finest parks in America. Bayard Taylor, in his work "Views Afoot in Europe," gives us a graphic picture of these roads, smooth and hard, with easy grades, bordered with trees and sodded with grass, sufficing for the conveyance of the heavies loads of produce and passengers. Mark Twain, in his "Innocents Abroad," in speaking of these roads uses this language: "Why these roads are as hard as adamant, as straight as a line, as smooth as a floor, and as white as snow." The result is when goods are manufactured in the remotest districts they are brought to market without any difficulty and with but little expense. As great a weight can be hauled in one of the dog-carts, so common here, over these roads, as in a "one-horse wagon" over the rough and boggy roads in America; while all kinds of transportation over them are remarkably inexpensive. As many of the factories in the United States are situated on remote water-courses, too small for navigation, and far distant from railroads, it is of the utmost importance, towards diminishing the prices of their goods, that manufacturers have an eye to the improvement of the roads over which their goods are to be transported.

When once the American manufacturers can compete with the European as to the original price of the articles, the question of the enlargement of trade will be in a great measure settled. European dealers are all the time looking out for desirable and cheap goods in all parts of the world, particularly in America, where the inventive genius of our people is celebrated, and when they find them they will be ordered in large quantities.

M. B. WHARTON,
Consul.

UNITED STATES CONSULATE,
Sonneberg, January 6, 1882.

THE NORTH-GERMAN LLOYDS.

REPORT BY CONSUL CANISIUS, OF GEESTEMUNDE.

The North-German Lloyds, the largest existing steamship company of this empire, will celebrate, on the 20th of February, 1882, its twenty-fifth anniversary. From small beginnings, and in spite of several unpropitious periods, this institution has reached a degree of development as but few similar undertakings can boast. The chief point of the Lloyd Company lies in its transatlantic communications which it has established, more especially with the United States. In the commencement it was intended to establish a fortnightly steamship intercommunication between this place and New York, but the traffic has so developed, that for 1882 not less than three great steamers will be expedited weekly from here to New York and back, and so there will be, consequently, occasion three times a week to send the mails from the United States via this port; and when we consider that this company now has steamers which make the shortest passages across the Atlantic—as, for instance, the new steamer Elbe, which made the voyage from New York to Bremerhaven in eight days and twelve hours—we may congratulate ourselves that this enterprising company has spared no expense in order to surpass in security as well as swiftness every other steamship company on the continent. In the year 1867, in order to satisfy the ever-increasing intercourse between the two countries, the Lloyd Company established a branch line to Baltimore, and this, also, met with such success that it has grown from a monthly into a regular weekly expedition of one great steamer, while at the same time arrangements were completed for another line to New Orleans. In order to meet the requirements of the commerce this line was started as a "season line" (from September to May), with monthly or semi-monthly voyages, and this character this line has retained ever since, because of its insufficient export trade to the Crescent city.

The South American lines of the Lloyd Company to Brazil and La Plata, which were called into existence in the year 1876, at first encountered, in consequence of already existing and competing lines, many difficulties; still, the energetic and persevering management has conquered even here, so that a regular monthly intercourse takes place now between this place and the ports of Brazil and La Plata, with occasional additions of steamers during the height of the shipping season.

Besides the transatlantic lines, this company maintains a semi-weekly connection with Hull and London; and, further, during the season, frequent passages to the watering-places, Norderney and Heligoland, and also daily passenger trips between Bremen and Bremerhaven.

The fleet which is required for such an extensive traffic consists of 27 transatlantic steamers of 2,300 to 5,000 tons burden; 9 for the European intercourse; 14 for river and coast traffic, besides 42 lighters, which serve to bring the goods brought by the transatlantic steamers on and off board. The entire burden of all ships of this company amounts to 101,100 tons, and the horse-power of all ships to 30,000. In order to keep such a great number of steamship materials in perfect repair, the company possesses two great workshops in Bremen and Bremerhaven; and, further, in the latter place, its own dry-dock, which can receive two large transatlantic steamers at the same time.

The North-German Lloyd Company also constitutes its own insur-

ance company, and is, consequently, highly interested in the safety of its vessels, and in ascertaining that they are in every way seaworthy, and commanded by the ablest seamen that can be found. This is probably the reason that during the existence of this remarkable company—twenty-five years—but very few accidents have happened to the vessels crossing and recrossing the Atlantic. The great security which passengers who cross in them enjoy—the humane treatment, the excellent fare, the great discipline on board, have, for years, attracted travelers and emigrants from Germany, Austria, and the Eastern countries to the United States to such a degree that this company carries more passengers across than any steamship line in the world. In 1881 not less than 150,000 persons were carried across the Atlantic. When the line celebrates its twenty-fifth anniversary, on the 20th February next, not less than 1,000,000 people will have been brought over the ocean which divides Europe from America.

THEODORE CANISIUS,
Consul.

UNITED STATES CONSULATE,
Geestemunde-Bremerhaven, January 10, 1882.

PORT DUES AND CHARGES AT BREMERHAVEN FOR 1881.

REPORT BY CONSUL CANISIUS.

DOCK DUES.

For going in and out through the gates, and for staying in one of the ports, have to defray, unless No. II of this tariff be applied:

1. Ships of a capacity of above 170 cubic meters (2.833 cubic meters = 1 British register ton): for a stay up to 30 days, inclusive, per cubic meter, 0.06 mark; for a stay up to 60 days, inclusive, per cubic meter, 0.12 mark; for every further term of 30 days begun, per cubic meter, 0.01 mark.

2. Ships of a capacity of from 40 to 170 cubic meters: for a stay up to 15 days, inclusive, per cubic meter, 0.03 mark; for every further term of 15 days begun, per cubic meter, 0.01 mark.

3. Ships of a capacity under 40 cubic meters: for a stay up to 15 days, inclusive, for the vessel, 0.30 mark; for every further term of 15 days begun, for the vessel, 0.15 mark.

4. *Rafts.*—For every term of 15 days begun, per square meter, 0.03 mark. A stay begins with that day which follows the passing in through the gates. Fractions of 0.5 cubic meter, or more, are counted for a full cubic meter, but smaller fractions are not charged.

Ships leaving the harbor for repairs, or for using the deviation buoy, and then returning into it, or those that after leaving the harbor return into it before having passed the first buoy at the mouth of the Weser, for the purpose of completing the cargo, on account of ice, stormy weather, or average suffered, are not treated, concerning the harbor-money to be paid, like ships newly entering, but in the same manner as if the new time of stay were an immediate continuation of the former stay.

TONNAGE.

Ships of every size dispatched from places on the Weser, that is to say, as far as the Horumer Siel, on the Jade, and as far as the Dorumer

Tief, on the right bank of the Weser, inclusively, or bound thither from one of the harbors, pay, unless the calculations according to position be favorable for them, instead of the harbor-money according to the tariff, for each ton (1,000 kilograms) of goods put on shore or received from shore, 0.08 mark.

Exempt from harbor-dues respecting tonnage are:

1. Tow-steamers taking out or bringing in other vessels.
2. River steamers regularly carrying passengers to and from Bremerhaven.
3. Crafts and lighters plying on the Weser and the Jade (not beyond Horumer and Dorumer Siel), and not putting goods on shore nor receiving them from shore, but transporting them from or carrying them to sea-going vessels.
4. River crafts carrying ballast to a vessel.
5. River crafts entering empty and leaving empty.
6. Vessels solely used for fishing.
7. Pilot-vessels serving only this purpose.
8. Ships owned by the Bremen State or the German Empire.

The deputation for harbors and railways is empowered to abate the harbor-dues imposed by the tariff for steamers frequenting the port in regular succession.

III. *Dock-gate dues.*—Ships leaving the harbor for repairs, or for using the deviation buoy, and the returning into it, or those that after leaving the harbor return into it before having passed the first buoy at the mouth of the Weser, for the purpose of completing cargo, on account of ice, stormy weather, or average suffered, or those removing from one of the harbors into another, have to defray dock-gate dues of 10 marks. Ships of a capacity up to 170 cubic meters (inclusive) and lighters are free from dock-gate dues.

IV. *Tonnage at the bank of the Geeste.*—For embarking or disembarking goods on the right bank of the Geeste a tonnage is charged for each ton (1,000 kilograms) of goods put on shore or received from shore, 0.03 mark, but not more than 1.50 marks.

V. *Careening-money.*—For using one of the careening places in order to examine or to repair a ship, per cubic meter capacity, 0.05 mark, but never less than 10 marks.

VI. *Harbor pilotage.*—For piloting ships in and out: For ships up to 250 cubic meters capacity, 6 marks; for ships above 250, up to 500 cubic meters, 7.50 marks; for ships above 500, up to 1,200 cubic meters, 11.50 marks; for ships above 1,200, up to 2,000 cubic meters, 15.50 marks; for ships above 2,000, up to 3,000 cubic meters, 18 marks; for ships above 3,000 cubic meters capacity, and for ocean steamers, 23 marks.

VII. *Boat-assistance.*—For assistance, on going in and out, afforded by one or several manned boats, by the direction of the harbor-master, inclusive of the people, for shifting lines: For ships up to 250 cubic meters capacity, 4.50 marks; for ships above 2500, up to 500 cubic meters, 6 marks; for ships above 500, up to 1,200 cubic meters, 10.50 marks; for ships above 1,200, up to 2,000 cubic meters, 12 marks; for ships above 2,000, up to 3,000 cubic meters, 16.50 marks; for ships above 3,000 cubic meters, 20 marks; for ocean steamers, 40 marks. If in extraordinary cases, at night, storm, or ice, &c., the boat-assistance be connected with uncommon difficulty, as that the ordinary boat-assistance does not suffice, the rate may be proportionately raised at the discretion of the harbor-master, but the additional charge must not exceed one-half of the tariff rate.

VIII. *Removing ship.*—For removing ships in the harbor, as a com-

pensation for the harbor pilots: For ships up to 600 cubic meters, capacity, 1.50 marks; for ships from 600 to 2,000 cubic meters, 3.50 marks; for ships above 2,000 cubic meters, 5 marks.

Ships removing for adjusting the compass or for trying the screw, pay the double; ships piloted into the Lloyd-dock and out of it pay thrice as much as the above rates.

If a ship during her stay in harbor has already once been removed by order of the authority, without such removal having at the same time been desired by the master, of the ship or his commissioner, every further removal ordered by the authority alone must be effected gratis by the harbor pilots.

IX. *Storage.*—For goods put down on the quay, and those lying more than 15 days, a storage is charged for every square meter a day 0.05 mark; for goods stored in the storing-places being under the administration of the harbor-master, for every 20 square meters and every term of 30 days begun or finished, 0.70 mark.

X. *Tariff for using the cranes and sheers.*—Concerning the conditions for using them, the regulation of the 7th June, 1864, is valid. The ordinary cranage is per ton (1000 kilograms) or 0.25 mark; the extra duty for using the sheers is for weights up to 5 tons, 20 marks; for weights from 5 to 10 tons, 40 marks; for weights from 10 to 15 tons, 60 marks; for weights from 15 to 20 tons, 80 marks; for weights from 20 to 25 tons, 100 marks; for weights from 25 to 30 tons, 200 marks; for weights from 30 to 35 tons, 400 marks; for weights from 35 to 40 tons, 600 marks; for weights from 40 to 45 tons, 800 marks.

For lifting out and putting in ship's masts: In ships up to 1,200 cubic meters capacity, for each mast lifted or put in, 30 marks; in ships above 1,200 up to 2,000 cubic meters for each mast lifted or put in, 45 marks; in ships above 2,000 cubic meters, 70 marks.

THEODORE CANISIUS,
Consul.

UNITED STATES CONSULATE,
Geestemunde-Bremerhaven, January 10, 1882.

THE LAST GERMAN CENSUS AND EMIGRATION TO THE UNITED STATES.

REPORT BY CONSUL CANISIUS.

The result of the German census, as published December 1, 1880, shows as follows: The whole empire has a population of 45,234.061, of whom 22,185,433 are males, and 23,048,628 females; excess of females over males, 863,195. The increase of the whole population since 1875, a period of five years, amounts to 2,506,689. Prussia now has 27,279,111, against 25,742,404 in 1875; Bavaria 5,284,778, against 5,022,429; Saxony has 2,972,805, having had in 1875, 2,762,586; Würtemberg has now 1,971,118, to 1,881,505 in that year; Baden 1,570,254, against 1,507,156, &c.

The population has increased in each of the different counties with but one exception, viz, in the county of Waldshut, in the Grand Duchy of Baden, where the population has decreased by 199 during the stated period.

This census also shows that Germany will in future have plenty of stalwart men and women to spare, who will probably seek a new home

in the Mississippi Valley, whither principally flows the tide of emigration that sets out from this port, and which last year amounted to 100,000.

Leading men of this empire and deputies in the German parliament seem to look upon this vast emigration with no very favorable eye, but if Germany had no emigration the poor-houses would soon become better filled than they are now. The idea has been, and still is, entertained by the statesmen of this empire to start a colony somewhere to which they might direct the stream of emigration. At the present time it would be impossible to find a suitable spot for the surplus population, for nearly every available place is already occupied by other governments. To Africa the Germans could not be induced to go. Samoa was mentioned last year by the Imperial government for this purpose, and a subsidy demanded; it was, however, refused by parliament. Even had it been granted it would hardly have subtracted any considerable number from the emigration to the United States, for the people of this country are sufficiently convinced that it is better for them to go to a civilized country with plenty of unoccupied land than to a place where civilization would first have to be established, and where the means of support may be very scant or of a questionable nature.

The millions of Germans now leading a happy life under our flag exercise so great an influence upon their brethren in the "Fatherland" that nothing could induce them to turn their faces toward any other land than the United States. All the information which I have obtained points to a probability that in the year 1882 the emigration to the States will be still greater than it was during 1881. The North German Lloyd Company has already received such numerous applications for passengers in their steamers that the directors have decided to run three large steamers to New York alone, as I have before mentioned, and to Baltimore the number will also be increased. In spite of this it is feared that the line will be unable to accommodate all those desiring a passage

Emigration to the United States via Bremerhaven during the year 1881.

Months.	New York.	Baltimore.	New Orleans.
January	1,437	438	.....
February	2,761	834	.....
March	8,130	6,355	.....
April	9,285	6,078	.....
May	11,413	8,228	702
June	9,641	7,709	.....
July	5,418	2,816	.....
August	6,996	3,602	.....
September	7,504	3,280	1,018
October	7,986	2,784	883
November	3,520	1,841	.....
December	1,663	677	.....
Grand total	.....	.....	122,999

THEODORE CANISIUS, *Consul.*

UNITED STATES CONSULATE,
Geestemunde-Bremerhaven, January 10, 1882.

SHIPBUILDING IN ENGLAND.

REPORT BY CONSUL JONES, OF NEWCASTLE.

SHIPBUILDING IN 1881.

In my last report upon the shipbuilding of the northeastern district of England I ventured to say that the future of this industry looked bright and promising. But the brightest anticipations and most sanguine forecasts have not only been realized, but greatly exceeded in the measure of growth and prosperity which have attended this trade during 1881; for during no previous year in the history of this country have so many ships been launched from the yards of the United Kingdom. Pessimists have been whispering for years that shipbuilding was being overdone; that the tonnage afloat already exceeded the legitimate demands of trade, and that both builders and owners must come to grief certainly and soon. These alarmists have ignored the important considerations, that the population and commerce of the world are ever increasing, that wooden ships, and even iron sailing-vessels, are being displaced by steamers; and that old steamers also are obliged to give way to their more modern competitors with their improved appliances for saving labor and fuel, and, therefore, for lessening the cost of sailing. New steamers frequently make handsome profits where the old ones are ruining their owners. It may with safety be asserted that the tonnage built in the world during 1881 has been greater than that of any year in the past. It is equally true that Great Britain transcends all other nations in this important branch of manufacture, and that her supremacy in this regard grows greater with each succeeding year.

At the end of 1880, British shipping engaged in the home and foreign trade, exclusive of river tonnage, represented 19,972 vessels, with a tonnage of 6,344,577, giving employment to 192,972 seamen. During 1881 no less than 618 vessels, with a tonnage of 889,531 tons, were launched into the British carrying trade from north country ship-yards alone. It can be satisfactorily established that shipping is the most lucrative of commercial ventures. It is also true that ocean transportation is certainly and rapidly concentrating under the British flag; and no intelligent American can contemplate the situation, and examine the tables which I shall herewith submit, without regretting the decadence of our own shipbuilding and shipping; without heartily wishing that "something might be done" by legislation and private enterprise to revive a most important industry, to multiply the vessels sailing under the American flag. No opinion is here advanced as to the means whereby a revival in shipping and shipbuilding is to be attained. But one important fact is clear—British shipowners admit that American masters are equal, if not indeed superior, to any others, in enterprise, capacity, and intelligence; and competition with Americans in the carrying trade of the world is the last thing they desire to encounter. I make this statement, not as a mere personal opinion, but as the expressed views of competent and experienced judges.

The extraordinary prosperity in shipbuilding has been enjoyed notwithstanding serious drawbacks and hinderances encountered in 1881. During the first three months of last year, severe frosts and snow-storms prevailed in this district to such an extent as to render all outdoor work

in the yards impossible for a considerable time. The loss thus sustained has been estimated at about thirty days. A large firm on the Tyne report that, out of 77 possible working days in January, February, and March, 32 days were lost owing to the severity of the weather; and all the builders agree in saying that, but for this inclement weather, a greater amount of tonnage had been turned out. Moreover, a strike, or, rather, a complicated squabble existed on the Wear for about four months—a state of things which greatly reduced the possible production of that river. But in spite of these drawbacks, unexampled prosperity has attended this industry. Wages have been raised throughout the district; all the yards, with the exceptions given, have been working to their full capacity, and orders are "booked" in many, if not in all the yards, for more work than can be accomplished during 1882.

It is interesting to watch the tendency which indicates the future of shipbuilding. Wooden vessels are being entirely superseded; sailing-ships of iron also are losing favor, while steel ships continue to be built, especially on the Tyne, though not in large or increasing numbers. The Clyde turns out a greater number of sailing-vessels than any shipbuilding river in the United Kingdom. Fifty-two vessels of this character were launched last year, against 217 steamers. My figures do not show whether any steel ships were built on the Clyde during 1881 or not. The Wear turned out four iron sailing-vessels, representing 5,021 tons burden; the Tees four sailing-vessels, of an aggregate tonnage of 7,053 tons; while the Tyne and Hartlepool report no sailing-vessels built during 1881. But the Tyne continues to lead other rivers in the construction of steel vessels; four steamers built of this costly metal were launched here during the year just closed. It is significant, however, that these figures show a considerable falling off since 1880. The relative prices of steel and iron plates in January, 1881, were: steel plates, £10 per ton; iron plates, £7 per ton. But now, or January, 1882, the prices are: steel plates, £11.5 per ton; iron plates, £7.5 per ton. It will be observed that steel plates have advanced in price out of proportion with the price of iron, a fact which accounts for the falling off in steel-ship building; for this competition between steel and iron resolves itself into a question of cost. The superior buoyancy and consequent greater carrying power of steel vessels can only claim precedence and obtain preference over iron ships when steel plates can be bought at considerable reduction in the price of steel considered relatively to iron.

The tables submitted on pages following show the growth of shipbuilding during recent years, as well as the present satisfactory condition of that industry in the north of England.

EVAN R. JONES,
Consul.

UNITED STATES CONSULATE,
Newcastle-upon-Tyne, January 5, 1882.

Number, tonnage, and horse-power of vessels built on the Tyne during 1881.

Constructors.	Vessels.	Tons.	Horse-power.
1. Palmer's Shipbuilding Company	27	50, 192	5, 034
2. C. Mitchell & Co	18	30, 206	4, 205
3. A. Leslie & Co	11	23, 089	2, 950
4. Wigham, Richardson & Co	9	15, 329	2, 100
5. John Redhead & Co	10	13, 445	1, 299
6. Swan & Hunter	8	13, 006	1, 527
7. Schlesinger, Davies & Co	7	12, 566	1, 310
8. Tyne Shipbuilding Company	6	10, 766	1, 068
9. T. & W. Smith	4	3, 162	451
10. Campbell & Co	2	2, 882	350
11. J. T. Eltringham	7	1, 618	478
12. Ed. Lindsay & Co	4	580	44
13. G. H. Smith & Co	5	129	138
14. John Lindsay	3	120	.....
15. Hepple & Co	1	97	60
16. J. A Maxwell	1	87	40
Total	128	177, 165	20, 954

Number, tonnage and horse-power of vessels built on the Wear during 1881.

Constructors.	Vessels.	Tons.	Horse-power.
1. James Laing	10	19, 413	1, 820
2. Short Brothers	11	19, 950	1, 720
3. I. L. Thompson & Co	10	19, 007	1, 930
4. Robert Thompson & Co	10	16, 935	1, 588
5. Doxford & Sons	8	16, 873	1, 710
6. Sunderland Shipbuilding Co	4	13, 000	1, 270
7. John Blumer & Co	7	11, 240	1, 230
8. Bartram, Haswell & Co	6	10, 642	1, 270
9. Osborne, Graham & Co	8	9, 072	620
10. S. P. Austin & Co	5	5, 167	570
11. William Pickersgill & Sons	5	4, 423	440
12. Strand Slipway Company	2	2, 437	250
13. D. Baxter & Co	2	700	100
Total	88	147, 959	14, 488

Number, tonnage, and horse-power of vessels built on the Tees during 1881.

Constructors.	Vessels.	Tons.	Horse-power.
1. Raylton, Dixon & Co	13	25, 036	2, 670
2. Richardson, Duck & Co	11	17, 338	1, 040
3. Pearse & Co	9	15, 971	1, 630
4. Craggs & Co	1	220	35
Total	34	58, 565	5, 375

Number, tonnage, and horse-power of vessels built at Hartlepool during 1881.

Constructors.	Vessels.	Tons.	Horse-power.
1. William Gray & Co	17	32, 033	3, 080
2. Edward Withy & Co	11	18, 408	1, 610
3. Irvine & Co	4	6, 100	430
Total	32	56, 541	5, 120

Number, tonnage, and horse-power of vessels built at Blyth during 1881.

Constructors.	Vessels.	Tons.	Horse-power.
1. Co-operative Shipbuilding Society	2	199	.....
2. Soulsby & Co	8	6,950	770
Total	10	7,149	770

Number, tonnage, and horse-power of vessels built at Whitby during 1881.

Constructors.	Vessels.	Tons.	Horse-power.
1. Turnbull & Sons	5	8,857	740

Comparative table of shipbuilding in the northeastern district during 1879, 1880, *and* 1881.

Locality.	1879.	1880.	1881.
The Tyne	139,843	149,082	177,165
The Wear	92,176	116,227	147,959
The Tees	31,756	48,506	58,565
Hartlepool	27,644	47,511	56,541
Blyth	.....	4,987	7,149
Whitby	9,526	7,984	8,857
Total tons	300,945	394,297	456,236

Comparative table of shipbuilding on the Clyde, Aberdeen, and Dundee, during 1879, 1880, *and* 1881.

Locality.	1879.	1880.	1881.
The Clyde	173,820	242,774	340,823
Aberdeen	4,607	7,990	9,837
Dundee	12,384	16,282	19,034
Total tons	190,811	267,046	369,694

Tonnage built on the Mersey and at Barrow-in-Furness during 1881.

	Tons.
Mersey	30,901
Barrow	32,700
Total	63,601

Total tonnage built in the northeastern district, Clyde, Aberdeen, and Dundee, and on the Mersey, and at Barrow-in-Furness, during 1881, 889,531 tons.

FOREST CULTURE AND FOREST RESERVATION.

REPORT BY CONSUL-GENERAL DENNY, OF SHANGHAI.

In our zeal for the development of new enterprises and the utilization of the many resources with which the United States has been blessed, there is one source of wealth—that which gives regularity to the seasons and fertility to the soil of every country—which is being neglected, and which is disappearing with a rapidity that is really alarming, namely, our timber.

The subject of cultivating and preserving the forests is one of such vital importance to the people of the United States that it must sooner or later receive, not only the additional attention of Congress, but that of the State legislatures as well. It is true that forest culture has already been considered in a limited way by some of the States, and is now receiving the attention of a few thoughtful and patriotic men, but before much benefit can be derived, or practical results attained, its importance must become apparent to the majority of the people, and the sooner this is made clear, the better it will be for all.

Prussia has perhaps the best system of timber culture in the world. In this branch of her service she has several thousands of officials, and while the expenses of maintaining this staff are very great, yet these are not only all met out of the revenue arising from the sale of timber, but a large surplus annually is returned to the state besides; nor is this all. By this system she has preserved the fertility of her good lands, and reclaimed others from the deserts and waste places. Such a system would have enabled China to escape those horrible famines which have in the past attacked the provinces of Chihli, Shansi, Shensi, and Shantung with such fatal results, thereby saving the lives of millions of her people, and untold suffering to millions more, as well as vast sums of money to the state.

It would restore the climate and soil of Asia Minor to its former salubrity and great fertility. Under it, California would become the garden of the world, while millions of acres of our public domain now barren and unproductive could be turned to good account. California yearly is increasing her drafts on her forests with comparatively no efforts being made to keep up the supply. In less than thirty years, it is estimated, at the present rate of consumption, her belt of red-wood will all be gone. She will then have to look to the Sierras, the northern part of the State, or to an outside market altogether, and in all probability it will be the latter for many years to come, as the timber fields of Oregon, Washington Territory, and Alaska will be more accessible than her own. The timber of Oregon and Washington has comparatively been little drawn upon, while Alaska remains almost undisturbed. The natural efforts constantly being put forth by these localities to replace the trees cut off or destroyed, would with proper care preserve their forests for an almost indefinite time.

Alaska, on account of the quantity and valuable kinds of her timber, in the near future will become one of the important lumbering districts of the United States. In fact, the time is not far off when the lumber exported in any one year will amount in value to more than the sum paid for the entire Territory, not taking into account the wealth of her

fisheries and mines. Then, if not now, will be apparent to every one the wisdom and statesmanship displayed in adding this purchase to our already extensive domain. An idea may be had of the annual consumption of timber for the manufacture of lumber when it is estimated that there are standing in the States of Minnesota, Wisconsin, and Michigan, 81,650,000,000 feet, and that the yearly consumption in those three States per capita is 350 feet, not including the wood used for fuel. Extending these estimates to the 50,000,000 of people now in the United States we find that the entire forests of the States named would be consumed in about four years. No allowance is here made for that consumed by the annual forest fires, and in other reckless and careless ways, which, no doubt, is equal to the legitimate consumption. This is certainly the case in the Western and Pacific States. Under such circumstances, as much as forest culture is needed in the United States, it is of far greater importance that those now standing should be protected from the reckless and criminal consumption which they are annually subjected to. The statutes enacted by Congress for the protection of timbered lands do not touch the great destroyer. It is true that the officers of the present law in the discharge of their duties often succeed in mulcting in fine and costs, the settlers on the prairie lands, who are driven in their battle with poverty to gather the wood used for fuel, as well as in many cases the timber necessary for the improvement of their farms; from government land; but who ever heard of a forest incendiary being hunted down and punished for his great crime? And it frequently happens that by the careless or criminal touch of the match, more timber is destroyed than it would require to fence a given State into twenty-acre lots.

Some idea of the damage done by fire to the Oregon forests may be had by observing from the deck as the vessel proceeds along the coast towards San Francisco for two or three hundred miles of the distance, the half-consumed, broken, and decayed trees, once as fine as any that ever adorned a forest. Neither are these waste districts confined alone to the Coast Range, for they are found far too often among the forests throughout Oregon and Washington Territory. In this destruction the "the noble red man" has played an important part. During the summer months, when everything is as dry as tinder almost, it is his custom to go into the forest with squaw and papoose to gather berries, and when the pick is over the torch is applied to create new fields to take the place of the old ones, which are continually being choked out by the heavy undergrowth, taking no note of the consequences, thinking only of the prolific crop of blackberries and raspberries the fresh vines which spring up on the burnt district will yield him when he comes again.

Then, too, fires often occur through the gross carelessness of hunters and campers. Frequently the camp-fire is left so that it communicates with the surrounding dry leaves, then the work of destruction begins; or it is built at the roots of a standing dead tree, and, running to the top, is carried off by the wind with the same result. Then, again, there is a want of caution in many cases in firing the grubs and dead timber in the clearings, and great damage to property and forests frequently results. In fact, once these fires are fairly started upon their ruinous journey who can estimate the loss or its character: Everything before them is consumed except earth and water, and in their eagerness for destruction small lakes and rivers are leaped as though they did not cross the fiery track. This condition of things lasts as long as there is fuel to feed the flames, or until they are quenched by the heavy rains. The recent terrible fires in the State of Michigan will long be felt by

that commonwealth, and while the property consumed was very great, and loss of life appalling, yet the destruction of timber was no greater than that wasted in this way annually in either Oregon or Washington Territory. Of course, the mere destruction of timber, great as it was, sinks entirely out of sight when one thinks of the harrowing details of that great calamity. Three whole counties it is said were swept by the flames, consuming towns, villages, farm-houses, barns, out-houses, and grain fields, and leaving many thousands of people homeless sufferers. But that which gives to it a melancholy and ghastly reality, is the fact that the blackened and charred remains of several hundred human beings, embracing in some instances whole families, were gathered from the ruins. What punishment could be inflicted that would meet the case if it should appear that all this suffering and death was the result of criminal or even gross carelessness? The first important step towards timber culture in the United States will have been taken when more stringent measures are adopted looking to the preservation of her forests from the annual fires which now sweep through them with such fatal results.

O. N. DENNY,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Shanghai, December 6, 1881.

AGRICULTURE IN GREAT BRITAIN.

REPORT BY CONSUL JONES, OF NEWCASTLE.

BRITISH AGRICULTURE—ITS ADVANTAGES AND DRAWBACKS.

During the early summer of the year now hastening to its close, all those who took an intelligent interest in the prosperity of their country and well-being of the agricultural community looked forward with confidence and joy to a bountiful harvest in the United Kingdom. The weather was then all that could be desired; the crops looked promising, and a yield far above the average was anticipated.

But with the approaching harvest time came chilly weather, with heavy and continuous rains. Grain cut in August remained on the ground until late in November. Many fields were entirely ruined; and at the best the labor expended was out of proportion with the harvest gained. Thus the hopes and anticipations of the early summer were converted into sad disappointment and serious loss. When the warm rays of the sun were needed, chill gray skies or sheets of rain were received. But during this month of December we had been reading of the tit-lark sitting on her eggs; of raspberries ripening in the open air; of hedgerows bright with roses and fuschias; of carnations, violas, and the primrose itself in bloom, and of blackbirds and thrushes in full song. Indeed, the caprice of the seasons is the bane of the British farmer.

A succession of bad harvests has told severely upon both landlord and tenant. Farms untilled, rents unpaid, and percentage of rental returned to the farmer, have reduced materially the landlord's net rent-roll. Farmers in thousands are being driven into other countries, more profitable avocations, and the bankruptcy court; whilst the country at large has sustained a loss stated at £130,000,000 during the bad harvest years.

The number of farms and plots of arable land available for cultivation

in England and Wales, but unoccupied on the 4th of June of the current year were, as follows:

In England 309 farms, representing 37,269 acres; and 179 detached plots of 5 acres and upwards, covering 4,729 acres. In Wales, there were 12 farms and 12 plots, representing 1,819 acres; making a total for England and Wales of 43,817 acres of available land unoccupied; while the statistics of 1879 and 1880 exhibit 2,650 bankrupt farmers; figures perhaps without parallel in the history of the country.

The practice of returning a percentage of rent money to farmers has been very general, though not universal, during several years.

These good-will offerings have ranged from 5 to 50 per cent., and have been influenced rather by the sympathies and financial ability of landlords than by any overruling principle which of right should govern profits of landlord and tenant. This hap-hazard method of dealing with a great commercial problem is unsound in principle and unsatisfactory to all concerned. If rents are too high, let them be cut down to the avoidance of a demoralizing and humiliating expediency.

The advantages of the British farmer are numerous and manifold, combining cheap money and labor, admirable facilities for transportation, and the best market in the world, while his drawbacks are chiefly confined to the corn-growing branch of husbandry.

Farmers emigrating to the West can there buy land outright, acre for acre, for the sum paid as a single year's rent in the "old country." The virgin soil of the States and Canada is rich, requiring no manure for several years, even to produce corn; therefore, less labor, which is more expensive in America, is needed there than here in the United Kingdom, and the seasons are more reliable there than in this country. It is true that the drought of last summer seriously injured cereal crops; it was an exceptional season. On the Pacific Slope year after year wheat is cut, threshed, and put in bags at once, and then piled up in the open field, without the slightest danger or anxiety from rain or storm. In the great wheat-producing States of the West the growth and ripening of grain are rapid, and the farmer, though hard worked, is free from care concerning the weather. This is in marked contrast with the monotonous repetition of harvest work and fears about the weather which harass and dishearten the British farmer.

Cereals suffer most from wet and inclement seasons. It is therefore not surprising to find that farmers are gradually abandoning that class of agriculture for safe crops and a more certain reward for their toil. The area under permanent pasture in Great Britain has increased 216,000 acres since last year, and upwards of 2,000,000 acres during the last ten years; that is to say, from 12,435,000 acres in 1871 to 14,643,000 acres in 1881. It is noteworthy that while 110,000 acres were added last year to the total area under cultivation in 1880, the land assigned to cereal crops has been curtailed by 28,000 acres, and that devoted to clover and seed grass under rotation by 92,000 acres.

If Great Britain were dependent upon any one country to supply its wants in breadstuffs, to abandon corn producing would be unwise, impolitic, and fraught with dangers to the nation, arising out of a possible failure of the crop and a probable combination to raise the price abnormally. But while the United States, Russia, the Colonies, Germany, Egypt, Austria, Hungary, and other countries continue to export their grain, meal, and flour to British markets, to the extent of 130,000,000 cwts. per annum, a healthy competition is guaranteed, dangers arising from the failure of crops become too remote for serious consideration, and the British farmer is warranted in pursuing that branch of his pro-

fession in which a maximum of profit is combined with a minimum of risk.

Home producers can best compete with foreign exporters where the expense of transportation is heaviest, where the risk, damage, and deteriorating of imports are greatest. Agricultural imports consist chiefly in breadstuffs, live stock, meats, dairy products, poultry, and eggs. Breadstuffs can be imported with the least cost and damage of any class of goods enumerated; corn crops are also most dependent upon the weather; it would therefore seem that the best interest of the home farmer would be served in following other branches of agriculture.

The exact disposition of the cultivated area of the United Kingdom, the Isle of Man, and the Channel Islands may be seen by the following table:

Acreage.	1881.	1880.	Increase+ or decrease.—
	Acres.	*Acres.*	*Acres.*
Total cultivated area	47,646,112	47,586,700	+59,412
Total of corn crops	10,654,697	10,672,086	−17,389
Total of green crops	4,803,211	4,746,293	+56,918
Total of clover, &c.	6,384,172	6,389,232	−5,060
Total of permanent pasture	24,767,767	24,717,092	+50,675

The first cost of live stock is less in many countries, and especially in the United States, than in England. But the risk and expense of transportation is great in proportion to the distance. Texan cattle, for instance, intended for the European market, have to be driven northward across the State, through Indian Territory and Kansas, to Junction City, on the Kansas Pacific Railway, a thousand miles away. There they are put into the train, carried over half a continent, and across the rough Atlantic. The land journey is expensive; freight over the Western Ocean is costly at all times, from the exporter's point of view, and during the winter season insurance is very high.

Nor is this suprising, for a gale of wind is often most damaging to live stock. While, in the event of a storm, cattle, horses, hogs and sheep are the first portion of a ship's cargo to be thrown overboard, and when live stock finally reach British ports from the west, they encounter disadvantages consequent upon the most stringent rules of the privy council, the hostility of competitors, and the prejudices of consumers. These are among the considerations which have influenced me to look with more favor upon the dead meat than upon the cattle trade from America, and to urge my countrymen to perfect facilities and arrangements for the former, which I believe will prove at once more remunerative and lasting than the live-cattle trade.

I here insert a table, compiled from the agricultural returns of Great Britain for 1881, showing the number of live stock in the United Kingdom, the Isle of Man, and the Channel Islands in 1880 and 1881:

Live stock.	1881.	1880.	Increase+ or decrease.—
	Number.	*Number.*	*Number.*
Horses	1,923,619	1,929,680	−6,061
Cattle	9,005,013	9,871,153	+33,860
Sheep	27,896,273	30,239,620	+2,343,347
Pigs	3,149,173	2,863,488	+287,685

The agricultural returns represent a heavy falling off of 2,343,347 in the number of sheep last year. This is attributed to the bad lambing sea-

son, the unusual severity of the winter, and to the liver rot, which has lately proven so destructive to this class of live stock. Cattle show a substantial increase of over 285,000, which, however, must be credited entirely to Ireland. In horses, on the contrary, we find an increase in Great Britain, but more than a counterbalancing in Ireland, leaving a falling off for the United Kingdom and the islands of over 6,000 during the year. The importation of horses has also greatly increased during the last few days.

The number brought over sea during 1880 was 9,264, against 15,246 in 1879; a falling off of close upon six thousand horses.

This considerable decrease in imports, together with the continuous increase for many years in the number of horses in Great Britain, the extension of pasture land, and the area under oats, are facts suggestive that farmers on this side of the channel find horse-breeding a remunerative branch of agriculture. I have often wondered why Englishmen do not attempt to rival Americans in breeding and training light, fast horses, so well adapted for carriages, delivery wagons, and the saddle. There is not, probably, a "three-minute horse" on Tyneside, whereas in American towns horses that trot a mile in that space of time are comparatively common. I need scarcely say that superior speed adds materially to the value of a horse.

I am convinced that with capable, energetic management on both sides of the Atlantic, a fortune could be made by bringing this class of horses to the United Kingdom. And the British farmer who will import a few suitable brood mares, breed and properly train light, fast trotters, will meet a more adequate measure of reward than he who shall continue to fight the weather. The potent, not to say pernicious, spirit of caste has invaded and divided society everywhere in the West, as well as in the East, but more emphatically in the Old World than in the New, and upon different lines also. Caste has been assigned as the cause of want of enterprise, and lack of substantial improvement in the dairy farming of the United Kingdom. While speaking on the point, let me get behind the leading journal. The *Times* of September 19, 1881, says:

> The truth is, the dairy has its social and commercial affinities in the lower class of farmers and the lower class of land owners. It is no exaggeration to say that most English land owners, happily placed above minute consideration, would rather lose a thousand a year in fat beasts or wheat than pocket that sum annually in butter, milk, or cheese. So the Old England dairy is left to the owner and occupier of some four or five fields. The former has saved his five thousand and invested it in land. The latter has risen from the rank of laborer by being more thrifty than other laborers; and he often is found to retain his penurious habits. In these days, he has the opportunities of learning his trade better, and sometimes he avails himself of them. Such farms hold their ground, and indeed increase, in the neighborhood of manufacturing towns, but they are soon absorbed in large ornamental domains, and they disappear in what are called resident districts.

If this be true; if it be less respectable according to English ideas to make butter and cheese than to cultivate corn, and fatten bullocks, we cannot be surprised that other and comparatively insignificant countries should distance Great Britain in the race for excellence in dairy farming. The importation of butter has increased 100 per cent. in ten years, from £6,000,000 in 1870 to £12,000,000 in 1880; the exact figures of last year's importation were £12,141,034; and to produce that quantity 1,200,000 cows must have been employed. These figures clearly prove that the United Kingdom is falling behind other nations while competing in her own market. The Normans and Danes are perhaps the best butter makers in the world. The Danes supply India and the Brazils with sweet cream unsalted butter, hermetically sealed; and their salt butter

comes to England in large quantities. The fresh butter of Normandy commands a higher price in the London market than that made at home. The possession of Norman blood may be a pardonable boast, but the supremacy of Norman butter over that of England in the great metropolis can scarcely be considered a matter of pride.

The United States is making satisfactory improvement and progress in this branch of agriculture. Formerly importers complained of the use of coarse salt in too large quantities; of careless packing in unsuitable packages; and of the want of care and cleanliness in handling during the long journey from the West.

But gradually these errors have been corrected, and the importer admits that American butter now reaches the English market in excellent condition. Its importation into this country now represents the value of £1,250,000 per annum. High degree of perfection in dairy farming is only attainable through the influence of agricultural departments, such as exist on the Continent and in the United States, strict adherence to the best means and methods for improving the breed and feeding the cows; scrupulous cleanliness in handling milk and cream; proper selection of churns and appliances for the best process of butter-making. Regulations and discipline in these matters become easier and more uniform through the influence of "associated dairies," as they are called in Europe, or "creameries," as they are designated in the United States. Some of these establishments buy the milk from farmers within a certain radius and make their own butter; while in other cases the farmers make the butter in the first instance, to be again manipulated and prepared for sale at a central depot by the wholesale dealer.

Illustrative of the way this is done let us quote from an excellent paper read by Mr. Allender, before the Farmers' Club, Inns of Court, London, last month. He says:

> Agents of the large houses in Normandy, such as Messrs. Bretel and others, attend the local markets, buy the butter from the farmers, who, in their own interest, attend to rules laid down by the buyers. It is then carted to the stores or factories, and there put through a machine, so that instead of having 1,000 different lots, varying from 20 to 50 pounds each, they turn out many tons per day of precisely the same sample. This, instead of being packed in baskets, rough cloths, and perhaps newspapers, is put into boxes each holding 24 pounds, in two-pound rolls, neatly made and neatly prepared, and if you look at 1,000 boxes you cannot tell t'other from which.

Several associated dairies have already been established and carried on with profit in the United Kingdom. Their more general adoption throughout the country would enable the British farmer to drive competitors elsewhere, for the country is well intended for dairy farming, and the advantage of being *in* the market can scarcely be overestimated. Some very interesting figures are given by Mr. Allender, already quoted, which I have retabulated, and shall reproduce here. They show conclusively that good feeding is the best policy in dairy farming.

Result from fifty cows in milk for forty-four weeks.

Cost of food and attendance.		Milk produced.		Profit.	Loss.
Per week.	Per annum.	Quantity.	Value.		
		Gallons.	£ s. d.	£ s. d.	
6*s.* each	£780	450	750 0 0	.....	£30
6*s.* 6*d.* each	845	550	916 13 4	71 13 4	.....
7*s.* each	910	650	1,083 6 8	173 6 8	.....
7*s.* 6*d.* each	975	750	1,250 0 0	275 0 0	.....
8*s.* each	1,040	850	1,416 13 4	376 13 4	.....
8*s.* 6*d.* each	1,105	900	1,500 0 0	395 0 0	.....
9*s.* each	1,170	950	1,583 6 8	413 6 8	.....
9*s.* 6*d.* each	1,245	1,000	1,666 13 4	421 13 4	.....

The importation of cheese also goes on increasing. It has more than trebled in twenty years, while the increase during 1880 over 1879 represented £1,267,497. The quantity imported last year was 1,775,997 cwts., and the United States furnished 64 per cent. of the whole. America has made greater progress towards perfection in cheese-making than perhaps any other country. During my recent visit to Wisconsin, I found that the church which I used to attend in Genesee had been converted into a cheese factory. This is symbolic of American enterprise in that direction. I ought, perhaps, to add that the congregation had built a larger church. No country can now have a monopoly over any brand of cheese, for while Stilton and Cheshire are manufactured in the far West, Gorgonzola is turned out in the English midlands. This is satisfactory; but let there be no deception. The cheese should be sold as American Stilton and English Gorgonzola.

If the spirit of caste deters British farmers from dairying, enthusiasm for hen-farming is scarcely to be hoped for; and yet this is a most interesting and profitable branch of agriculture.

Farmers are profiting from English prejudices in this regard. Imports of poultry and game have trebled in ten years, and now stands at £423,000. Eggs are coming over the sea have doubled in the same length of time, and their value for last year amounted to £2,235,451. About 750,000,000 eggs are sent to the United Kingdom annually from abroad—about two dozen eggs for each man, woman, and child in the country.

It is my conviction that the British farmer would improve his position and meet more adequate compensation by cultivating products now largely imported over sea at great disadvantage rather than by continuing the struggle of growing corn while the elements conspire against him.

Supplemental to this report, I have compiled several tables, enumerated below, showing the imports of agricultural products to the United Kingdom.

EVAN R. JONES,
Consul.

UNITED STATES CONSULATE,
Newcastle-upon-Tyne, December 21, 1881.

I.—*Wheat and wheat flour imported annually to the United Kingdom from* 1876 *to* 1880, *inclusive.*

	1876.	1877.	1878.	1879.	1880.
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*
Wheat	44, 454, 657	54, 269, 800	49, 906, 484	59, 591, 795	55, 261, 924
Wheat flour	5, 959, 821	7, 377, 303	7, 828, 079	10, 728, 252	10, 558, 312
Total	50, 414, 478	61, 647, 103	57, 734, 563	70, 320, 047	65, 820, 236
Total value	£27, 919, 526	£40, 694, 419	£34, 217, 641	£39, 970, 120	£39, 327, 820

II.—*Cereals, meals, &c., imported annually to the United Kingdom from* 1876 *to* 1880, *inclusive.*

Articles.	1876.	1877.	1878.	1879.	1880.
	Cwt.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*
Barley	9,772,945	12,959,526	14,156,919	11,546,314	11,705,290
Oats	11,211,019	12,910,035	12,774,420	13,471,660	13,826,732
Indian corn	39,963,369	30,477,818	41,678,906	36,148,379	37,224,735
Pease and beans	6,218,805	6,110,985	3,696,300	4,248,667	4,723,384
Rye	132,366	241,269	342,395	267,253	126,112
Buckwheat	37,739	61,424	45,813	42,753	31,757
Total	67,336,243	62,761,057	72,689,753	65,725,026	67,638,008
Barley meal	821	511	485	2,417	1,611
Oatmeal	166,681	153,418	762,088	645,928	625,415
Indian meal	7,703	2,713	41,747	37,080	55,374
Rye meal	17,115	47,463	56,322	8,345	9,250
Pea meal and bean meal	267	16	995	696	118
Buckwheat meal	33	16	16	92	68
Meal unenumerated	32,255	8,896	5,711	4,112	22,450
Total	224,875	213,033	867,364	698,670	714,286
Rice in husk	320	544	.....	.....	.....
Rice not in husk	6,469,181	6,617,603	6,109,020	6,857,330	7,889,710
Sago and sago flour	338,230	339,882	343,601	336,827	381,608
Farinaceous substances, &c. (*See* Value.)					
Spices	41,791,826	45,830,207	42,742,455	36,873,775	47,550,158
Sugar and molasses	18,907,069	20,349,058	18,520,259	21,514,436	20,249,228
Malt	3	29	5	76	384
Total value	£49,256,917	£55,495,508	£50,972,775	£48,840,263	£52,404,309

III.—*Meats, fish, provisions, poultry, &c., imported annually to the United Kingdom from* 1876 *to* 1880, *inclusive.*

Articles.	1876.	1877.	1878.	1879.	1880.
Meats:					
Beef, salted ..... cwts.	241,083	209,618	220,816	242,977	290,564
Beef, fresh or slightly salted ... do...	172,268	468,887	508,307	569,260	727,392
Unenumerated salt or fresh .... do...	92,556	130,178	145,981	153,284	149,010
Preserved, other than salted, and tongues ..... cwts.	283,066	469,003	439,900	567,877	655,800
Pork, salted and fresh ..... do...	378,607	303,734	389,439	441,309	409,267
Bacon and hams ..... do...	3,181,569	2,820,482	4,295,151	4,917,631	5,334,648
Total	4,349,149	4,401,902	5,999,594	6,892,238	7,566,681
Fish ..... cwts.	906,119	1,071,802	995,933	1,160,140	1,343,434
Poultry and game. (*See* Value.)					
Eggs ..... number.	753,026,040	751,185,600	783,714,720	766,707,840	747,408,600
Lard ..... cwts.	562,174	592,264	908,605	840,819	927,512
Butter ..... do...	1,659,402	1,637,403	1,796,517	2,045,399	2,326,305
Cheese ..... do...	1,531,204	1,653,920	1,968,859	1,789,721	1,775,997
Total value	£31,447,611	£31,227,346	£33,983,462	£33,845,153	£39,538,081

TIMBER TRADE OF RUSSIA.

REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.

The Cronstadt Messenger publishes an article on the development of the Russias' wealth in the septentrional regions, but particularly in the basin of the White Sea and its affluents, the wood trade of these regions being excessively slight in comparison with that of the neighboring countries of Sweden and Norway. The radius of the forests of Vologda and Archangel has a superficial area of 73,000,000 desiatines (100 desiatines equal 269.972 acres).

The wooded regions of Sweden cover an area of 15,000,000 desiatines, and those of Norway 6,000,000 desiatines. Nevertheless, the wood export of these various countries differs to the extent given in the following figures: The two Russian Governments export 124,000,000 cubic feet. Sweden and Norway export 1,200,000,000 cubic feet.

But a small portion of this wood is exported abroad, the amount being: From White Sea ports, 10,775,000 cubic feet; Swedish, 200,000,000 cubic feet; Norwegian, 82,891,000 cubic feet.

The foreign export per desiatine is, consequently, in the White Sea ports, 0.15 cubic foot; in Sweden, 13.19 cubic feet; in Norway, 14.15 cubic feet.

The export of the septentrional ports of Russia is accordingly ninety-four times less than of the Norwegian ports, and eighty-eight times less than that of the Swedish ports, notwithstanding that the two governments mentioned possess five times as much new land as Sweden, and twelve and one-half times as much as Norway.

The export of forest products from Sweden is even superior to that of all Russia, which is but 637,000,000 cubic feet.

During the last ten years Sweden has increased its revenues from this source each year, and they now amount to 229,000,000 francs.

What is most striking in the Russian wood export trade is the fact that the largest export proceeds from the least wooded districts, for while these districts export 45.45 cubic feet per desiatine, the septentrional governments only export 3.13 cubic feet. In Sweden the proportion is 35 cubic feet, whilst in Russia, for the whole empire, it has fallen in seven years from 8 to 6 cubic feet per desiatine.

In order to increase the revenues to be derived from this wood it is unnecessary that the raw material should be worked up on the spot.

In Sweden there were in 1871 but seven manufactories of wooden articles; five years later there were twenty-nine, producing articles to a value of over 2,000,000 roubles.

The Governments of Vologda and Archangel possess but eleven saw-mills. whereas there are thirteen hundred and fifty in Sweden.

THE CONDITION OF THE FORESTS OF RUSSIA IN 1877.

On the 1st of January, 1878, there were under the management of the department of forests 12,502 districts, with a total area of 123,325,660¾ desiatines, besides which there were 18,852.163 desiatines in the Government of Archangel, making altogether a total area of 123,500,000 desiatines.

Hereof 99,000,000 or 80 per cent. were suitable to forest culture, and of the remaining 24,529,652 desiatines 416,147 were let out, 152,463 were the allotments to the foresters, and 23,861,042 desiatines were waste land.

In proportion to the entire area of Russia in Europe, exclusive of the inland lakes, Finland, the vistula district and the territory of the Don Ovenburg, and Ural cossacks, there are 31 desiatines of government forest to every square verst of land, but only 25 desiatines of good woodland, consequently 1½ desiatines to each inhabitant of European Russia.

The great mass of the imperial forests are concentrated in the northern and northeastern governments at the north of the Volga and Kama, and on the right bank of the Volga in the Government of Limbirsk.

In the northern group, the Governments of Archangel, Vologda, Olonez, and Perm, there were 57 desiatines of imperial forest to every square verst, and 2½ desiatines to each inhabitant.

In the northeastern group the Governments of Kostroma, Viatka, Nijnii-Novgorod, Kasan, and Limbirsk, there were 29½ desiatines to every square verst, and about 2 desiatines to each inhabitant.

The middle and southern districts contain few forests. In the Governments of Moscow, Reasan, Pensa, Kaluga, Tula, Tambroff, Orel, Kursk, Voronesh, and Sharkoff, there are but 3½ desiatines to each square verst, and less than $\frac{1}{10}$ desiatine to each inhabitant.

The southern governments Poclolia, Kerson, Bessarabia, Poltava, Tauria, and Astrachan were still poorer in forests, there being but ½ desiatine to each square verst, $\frac{1}{60}$ desiatine to each inhabitant.

The gross receipts from the forest were in 1877, 9,139,21214.3 roubles, giving an average per desiatine of 9.2 kopecks. The rented lands brought 89.4 kopecks per desiatine.

The governments richest in forests yielded the least average income. In the northern governments, for instance, the return was but 3½ kopecks per desiatine; in the northeastern but 15⅙ kopecks, whilst in the central districts the desiatine yielded 117½ kopecks, and in the southern 173½ kopecks.

The same conditions prevail in the rented lands. In the north and northeastern, district the return was, respectively, 33.7 and 33.8 kopecks per desiatine, whilst in the southern governments it amounted to 140 kopecks, the highest return being 25.3 kopecks in the central governments.

The total income of the department of forests in 1877 was 9,509,641.97¾ roubles, which was produced by—

	Roubles.
Sale of wood	7,614,040.40¼
Land rentals	478,273.33
Fines, &c., for wood thefts and infringement of forest laws	280,684.00¼
From wood tax paid by former domain serfs in lieu of wood	740,936.66

In comparison with the estimated income the gross receipts show a deficit of 1,012,053.34¼ roubles, or about 9.6 per cent.

The total expenditures of the department were 6,118,647.27 roubles, or 64.3 per cent. of the gross receipts. Hereof was spent, for salaries and department of forests, roubles 3,458,482.33, or 56.5 per cent. of total expenditures; for the improvement of forests and culture, 781,682.30 roubles, 12.81 per cent. of expenses; for Semstro duties, 1,878,482.60, or 30.7 per cent.

The total expenditure for the single desiatine fertile woodland were 5.2 kopecks, the net receipts being 3 kopecks per desatine.

According to the preceding arrangement of governments, the net yield per desiatine was, in the northern, 0.9 kopeck; in the eastern, 1.7 kopecks; in the northeastern, 6.4 kopecks; in the southern, 33½ kopecks; in the western, 35½ kopecks, and in the central, 80½ kopecks.

EDGAR STANTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, December 1, 1881.

ENCOURAGING MANUFACTURES OF ENGLISH WOOL.

REPORT BY CONSUL SHEPARD, OF BRADFORD.

An association has been lately formed in London, headed by the Countess of Bective and other titled ladies, having for its object the

reinstating in popular favor (through the agency of the aristocracy) of goods for ladies' wear made from the bright English wools manufactured principally in Bradford.

Concerning the patriotism of the effort, there cannot be two opinions, but concerning the results likely to accrue, the judgments of people differ greatly. It is true that a little additional demand has been created by the movement, and will doubtless continue, because the fact has been forced upon drapers and dressmakers that, for certain purposes, luster goods are most useful, but to bring bright goods again into anything like universal use, it will, I believe, be necessary to re-establish the conditions and circumstances prevailing when this class of goods was last in vogue—I mean the readoption, among other things, of crinoline.

The adaptability of the soft clinging materials to the present fashions of "costumes," and the nonadaptability of the stiff luster goods to the same styles, is such as offer no slight impediment to the success of the scheme.

One of the reasons for the fall in price of English wool is the great and constantly increasing demand for and production and importation of colonial wools, and it is a startling fact that against 30,000,000 sheep in England, there are 75,000,000 or 80,000,000 in Australia, New Zealand, and Canada, with the number constantly increasing, and it must also be remembered that to encourage English wool is to discourage colonial wool—to "protect" one part of the empire against the other; but this discrimination is, I believe, the very thing which it is attempted to effect; in fact, to help the English wool-growers first, the Bradford manufacturer second, and the colonies not at all is, I take it, the object of the association. Naturally, this will entail resentment on the part of the colonies; and more than that, it is diametrically opposed to the principles of "free trade," a pet principle which, I fear, with too many "flies out of the window" when interest "comes in at the door." As for the manufacturers, I presume, that all things being equal, they would prefer to help the English wool-grower, but when the profit is shown to be more in the use of colonial than English wool, I am of the opinion that they will let the latter look out for itself. What they want is the result.

Had certain well known and extensive Bradford firms drawn their checks for £50,000 at the time the fashion changed, and altered their machinery to suit the demand, as they are now doing, and as they laughed at me a long time ago for suggesting, not only would they never have felt the sum, but they would, instead of losing hundreds of thousands of pounds, been richer to-day by almost, if not quite, a like amount. Lawyers are, however, generally considered the worst judges of their own cases, and a doctor's diagnosis of his own disease is seldom given much weight.

Because of a lack of foresight on the part of the manufacturer, sympathy for him is mitigated; but for the poor farmer who could not help himself, one has most sincere and heartfelt pity.

I wish I could see a better prospect ahead for the English wool-grower, but, to be candid, I cannot; in fact, if he does not find a profit in the present, or about the present, price of wool, I am of the opinion that the sooner he turns his attention to something else the better. My reasons for this belief are as follows:

English wool, by the very nature of its fiber—coarse and harsh—will not make the soft, pliable, better classed goods which the improved methods of manufacture have educated the people up to demanding, and I no more believe that taste in dress goods will go backward than I believe the traveling community will go from railways back to stage coaches.

In corroboration of this statement, I might mention the fact that whereas in former years the wool of the highest luster (Yorkshire and Lincolnshire) brought the highest price, and wool of the least luster (Kent) the lowest price, the condition of things is now exactly reversed, and the Kent wool brings the highest price, while Yorkshire and Lincoln wools bring the lowest prices.

The staple article of Bradford manufacture, and that which it is sought to re-establish, has been a worsted weft with a cotton warp, while the French or "soft goods" are are all wool.

The former will crumple and crease, while the latter are elastic and will recover, leaving much less wrinkle, no matter what weight is put upon them. Subject a luster and a lusterless piece of goods to the weight of the body and note the difference of effect! Let the two get a wetting and mark the result!

Another reason for buying Bradford goods in the past was that, being part cotton, they were much cheaper than all wool, but now that wool is so much lower in price, and the cost of the two are so much nearer together, people will continue to take the all wool, and I am of opinion that soft goods, because of their superiority, will continue to be preferred. There is no limit to the possible production of colonial wools, hence their abundance will keep them at a reasonable price.

Formerly servants were not given to imitating their mistresses, and would wear almost anything if it were only cheap, but now all is changed, and "Simpkins" must ape the lady whom she serves, much to the detriment of Bradford luster goods.

Bradford manufacturers are at last turning their attention to the making of all-wool dress goods, and when they succeed and can compete with the French, business will revive; but it will not then be the *old* Bradford trade, but a *new* one, nor will their success in soft wools benefit the British wool-grower.

For the manufacture of low class fabrics, costing a few pence per yard, and composed of cotton and wool, there is no place which can at present compete with Bradford, but these goods find their greatest market in China, Japan, and South America, nor will local encouragement or discouragement affect them one way or the other.

C. O. SHEPARD,
Consul.

UNITED STATES CONSULATE,
Bradford, December 13, 1881.

THE WINE TRADE OF BORDEAUX FOR THE YEAR 1881.

REPORT BY CONSUL ROOSEVELT.

A report just published here by the director of customs gives the following important information concerning the wine trade of Bordeaux for 1881:

Importations from adjacent countries are greatly increased, Italy having supplied 856,034 gallons against 14,600 gallons in 1879; Spain 25,640,224 gallons against 8,401,000 gallons in 1879; and other countries 7,400,510 gallons against 1,113,000 gallons in 1880.

An enormous increase in the quantity of dried grapes imported is also shown by this report, only 1,914,000 pounds having been received in 1880 against 4,772,000 pounds in 1881. All but about one-fourth of this

fruit, which is imported for the manufacture of cheap wines and other drinks, was grown in the Ottoman empire.

The exportation of wine in barrels from Bordeaux during 1881 amounted to 33,418,000 gallons, showing an increase over the exports of 1880, when the quantity shipped was 32,018,000 gallons, but a marked decrease as compared with those of 1879, when the shipments were 41,385,000 gallons.

The total quantity of wine exported in bottles during 1881 was 3,289,586 gallons against 3,193,000 gallons in 1880.

The principal countries which have received these wines, and the quantity that each of them purchased in 1881, are shown by the following:

WINES IN CASKS.

	Gallons.
England	6,784,000
Argentine Republic	5,790,000
Germany	4,856,000
Netherlands	2,635,000
Belgium	2,387,000
Uruguay	2,046,000
United States	1,798,000
Russia	527,000

These figures indicate a slight reduction for England, Belgium, the Argentine Republic, Uruguay, and Russia, and a slight increase for the United States, Germany, and the Netherlands since 1880. The increase of exports to the United States is especially noticeable, as only 1,447,700 gallons in casks and in bottles together were shipped from this port to that country in 1880, while the total in casks and bottles shipped in 1881 was 2,160,700 gallons. The amount sent in bottles has almost doubled during the past year, largely on account, it is said, of the superior facilities provided by the direct line of steamers from Bordeaux to New York.

The French press passes judgment from time to time on the stringency of the tariff at American ports, and merchants frequently inquire if there are any prospects of the same being modified or reduced.

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Bordeaux, France, January 17, 1882.

THE TARTAR TRADE OF BORDEAUX, FRANCE.

REPORT BY CONSUL ROOSEVELT.

If the people of the United States were to interest themselves sufficiently in the production of wine to supply the domestic market, another important and valuable article of commerce would be the natural product of their industry in that direction, viz, tartar.

There is no duty on the entry of crude tartar into the United States, and as but little is produced there, manufacturers of cream tartar, baking powders, &c., are compelled to import the greater part of their crude materials. Bordeaux is, perhaps, the most important center of this trade, and dealers here employ the most approved methods, not only for obtain-

ing the best results from barrels in which wine has lain for some time, but also for the extraction of every grain of tartar that settles to the bottom of the barrels with the wine dregs. A few hints concerning their method of procedure may be of value to those interested.

Of late years the supply of tartar has considerably decreased owing to the reduction of the wine crop, and tartar can only form to a paying extent in barrels which are left undisturbed for a period of years. Indeed, the longer the wine remains in the barrels, the better and more abundant will be the tartar, which forms in a hard crystalline crust around the sides of the barrels, and is not produced if the wine is kept in other than wooden vessels. For instance, in many parts of Spain where the wine is stored in cisterns built in the earth, and in the raw skins of hogs and other animals, no tartar is produced, though the same wine is found to be very rich in that article. A knowledge of the importance of the trade is now causing the Spaniards to adopt wooden casks more than formerly, and wholesale exporters here who collect their supplies from all quarters where a few pounds are to be had, are beginning to draw considerable quantities from the southern side of the Pyrenees. Italy supplies a large amount of tartar for the Bordeaux market.

While the trade is not exactly a monopoly, there is one firm here, Dreyfus Brothers, who control about four-fifths of the business, and have their agents in all wine districts ready to pick up large or small lots of tartar which are offered at a low rate in the local markets. This firm sends an enormous quantity of argols to the United States each year. They were the first to introduce the system of extracting tartar from the settlings, which is done about as follows:

There are usually from one to three inches of dark grounds found at the bottom of full barrels of new wine after they have stood long enough to settle, and about 25 per cent. of tartar is naturally precipitated with these particles. After a certain time the dregs are removed in a cake, dried, and broken up till they are about the size of common sand and of a pinkish tinge, like the "tailings" of a Nevada quartz mill. These dregs are sold to tartar manufacturers for about five dollars a bushel. They are put into huge vats of hot water and cooked for about two hours, when they are run off into shallow receivers around which the crystals soon begin to form in a thick mass. As the water always holds a certain quantity of the tartar in solution, it is never allowed to escape, but is used over and over again in the boilers and settlers, thereby preventing a loss which must recur as frequently as the water was drained off, and which would largely diminish the profits of the business.

The factory of Messrs. Dreyfus turns out from 120 to 130 tons of "dreg-crystals" every month, the dregs yielding on an average 20 per cent.

The manufactures of cream tartar, tartaric acid, &c., are not extensively carried on here, most of the crude productions being bought in England and the United States. But the dealers in wine dregs now have a formidable rival in the field for the purchase of the supply in the person of the manufacturer of cheap brandies, who can afford to give a higher price for it, and has discovered that it imparts the wine flavor to a concocted brandy, which is one of the tests of quality.

Tartar which forms from wine that has been cleared with plaster is richest is tartaric acid, while that formed in wine that is cleared with eggs is richest in cream tartar. The tartar takes the tinge of pink or cream, as the wine in which it forms is red or white.

The exports of this article from Bordeaux to the United States amounted

to $1,001,446.41 in 1880, and $1,251,477.62 in 1881, showing an increase of $250,031.21.

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Bordeaux, France, January 10, 1882.

ART EXPORTS FROM FLORENCE.

REPORT BY CONSUL CROSBY.

I beg herewith to report to the Department the following facts relating to art matters in Italy which may be of interest to the art societies and artists of America.

The artistic importance of Florence is shown by the following figures, which establish its claim to be the first city of Italy in the amount of its exports of works of art to foreign countries.

During the year 1880 there were exported a total of ancient and modern objects of art to the declared value of 4,421,963 lire (francs). Among these there were 2,335 copies of paintings and statuary of the value of 1,897,416 lire.

The number of permits delivered for export was 1,651, and the total number of objects exported 9,088.

During the above period the objects of art exported from Rome amounted only to 1,400,000 lire.

Visitors to the galleries and museums in Florence during 1880.

Galleries or museums.	Number of visitors.		Total.
	Paying one lira.	Free.	
Uffizi Gallery	27,497	17,265	54,762
Pitti Gallery	11,919	9,448	21,367
National Museum	10,583	2,263	12,846
St. Mark's Museum	6,408	1,843	8,251
Egyptian Museum	1,404	346	1,750
Total	57,811	31,165	88,976
Daily average	192	104	296

There were 29,389 entrances of artists and art students, of which 15 per cent. were American. Sundays and Thursdays free.

J. SCHUYLER CROSBY,
Consul.

UNITED STATES CONSULATE,
Florence, November 14, 1881.

Record of permits for exposition of objects of art, granted in 1880, showing the number and value of articles.

Months.	Works of art.		Sculpture.				Pictures.			
	Previous to the nineteenth century.	Of the nineteenth century.	Previous to the nineteenth century.		Of the nineteenth century.		Previous to the nineteenth century.		Of the nineteenth century.	
			Originals.	Copies.	Originals.	Copies.	Originals.	Copies.	Originals.	Copies.
January	102	213	2	.....	35	81	51	18	54	130
February	272	187	133	.....	35	1	47	.....	105	158
March	389	87	10	4	203	8	147	.....	208	253
April	305	156	11	.....	45	.....	67	.....	141	212
May	158	703	1	.....	51	15	71	.....	201	391
June	60	145	5	.....	16	.....	37	.....	270	420
July	7	205	.....	.....	49	.....	25	.....	138	210
August	35	29	.....	.....	11	.....	20	.....	174	61
September	50	11	.....	.....	26	.....	18	2	87	56
October	126	39	1	.....	35	.....	44	.....	127	73
November	76	51	.....	.....	30	.....	12	.....	74	104
December	58	111	.....	.....	15	.....	28	.....	189	267
Total	1,638	1,937	163	4	551	105	567	20	1,768	2,335

Months.	Number and approximate value of articles.				Total.	Aggregate value.	Number of permits for exposition.
	Previous to the nineteenth century.		Of the nineteenth century.				
		Lire.		*Lire.*		*Lire.*	
January	173	34,430	513	91,910	686	126,340	111
February	452	69,990	486	89,455	938	159,445	121
March	550	905,517	759	195,560	1,309	1,101,077	228
April	383	479,490	554	374,859	937	854,349	245
May	230	499,650	1,361	250,243	1,591	749,903	188
June	102	139,250	851	161,263	953	300,513	168
July	32	82,160	602	189,402	634	271,562	119
August	55	16,140	275	120,924	330	137,064	68
September	70	11,250	180	51,932	250	63,182	68
October	171	62,900	274	81,058	445	143,958	110
November	88	9,170	259	168,287	347	177,437	99
December	86	214,590	582	122,543	668	337,133	126
Total	2,392	2,524,547	6,696	1,897,416	9,088	4,421,963	1,651

RAILWAYS IN SWITZERLAND.

REPORT BY CONSUL ADAMS, OF GENEVA.

According to a statement just issued by the federal department of post roads and railways, the length of railway lines in operation in Switzerland at the close of 1880, was 2,571 kilometers, of which 2,486 kilometers were through lines, and 85 kilometers local lines. The capital invested is as follows:

Shares	$165,499,999 93
Subventions	15,819,878 62
Loans	104,378,067 77
Total	185,697,946 32

This is exclusive of the claims of shareholders and creditors extinguished in liquidations of various companies, which are estimated at the close of 1880 as follows:

Est-Ouest	$965,956
Ligne d'Italie	4,912,002
Jura Industriel	2,590,927
Riga-Scheidegg	300,790
Jougne-Eclépens	1,314,912
Berne-Lucerne	2,845,678
National	5,565,775
Total	18,496,040

The following statement gives the cost of construction:

	Kilometers.	Average cost per kilometer.	Total cost.
Through lines	2,486	$58,616	$145,719,451
Local lines	85	40,887	3,475,399
	2,571		149,194,849

The table annexed gives the statistics of transportation, the receipts and disbursements for 1880. The revenue per kilometer varied from $449 (Wohlen-Bremgarten line) to $10,456 (Riga-Vitznau), the average being $4,514. The total disbursements were 52.48 per cent. of the receipts; the excess of receipts over expenses 47.52 per cent., or $1,145 per kilometer. At 4 per cent. per annum about $48,000,000 of the capital is unproductive, but this estimate includes the expenses of the new line of the Saint Gothard, which will probably come into operation within a year.

The member of employés of all companies is 13,248; of locomotives 543, and of cars 4,192. The capital of the relief funds, supplied by assessment of the members and by grants of some of the companies, is $747,647.

There were 216 accidents in 1880, in which 91 persons were injured, 41 fatally.

It is worth observing here that the Swiss railways have hitherto been an inconsiderable part of the European system of transportation. For obvious reasons the great international lines have avoided the central Alpine regions, and the Swiss lines connecting with them have only a local importance. There has never, I believe, been a night service on any of them; so that a traveler, or merchandise, arriving at any point of the frontier in the evening is detained until the next day. The opening of the Saint Gothard tunnel will, therefore, be a capital event in the traffic of the country, as it will at once throw the railways of Northern and Central Switzerland into the European system. A similar change will be wrought for communications east and west by the Arlberg tunnel, now in construction, and the transformation will be completed by the projected tunnel under the Simplon, bringing the French railways into more direct relations with Italy and the east.

As the impending changes are likely to involve large additions to the rolling stock of the Swiss roads, it may be worth while to call the attention of American manufacturers to them. A very imperfect form of the American car has long been in use on all the lines of German-Switzerland, so that there would be little to overcome in the habits of the traveling public. I suppose, however, that competition with the local builders would be possible only by establishing factories here, as

was done by the Pullman Car Company in England some years ago. An attempt was made after the Paris Exposition to bring the American locomotive to the attention of the Swiss companies, but nothing came of it. Perhaps there will be a better opportunity afforded by the new lines, which are marked by sharp curves and steep gradients, and so will require machines similar to those in use upon many of our roads.

LYELL T. ADAMS.
Consul.

UNITED STATES CONSULATE,
Geneva, December 23, 1881.

Traffic of the Swiss railways for 1880.

Passengers:			
First class		312,065	
Second class		3,862,707	
Third class		17,433,809	
		21,608,581 =	$4,551,078 77
Baggage and merchandise:			
Food products	tons..	1,764,471	
Combustibles	do...	1,079,203	
Materials of construction	do...	1,192,631	
Cattle	do...	103,753	
Miscellaneous	do...	1,676,950	
		5,817,008 =	6,119,402 17
Miscellaneous receipts			913,431 36
			11,583,912 30

EXPENSES.

Interest	$4,631,996 33	
Dividends	1,012,217 64	
Other expenses	434,746 21	
		$6,078,960 18
Excess of receipts over expenses		5,504,952 12
		11,583,912 30

GRAIN TRADE AND HARVESTS IN SCOTLAND.

REPORT BY CONSUL LEONARD, OF LEITH.

At the conclusion of a most unfavorable season, the improved weather experienced for a few days lately has permitted the remainder of the cereal crops throughout Scotland, with only a few exceptions, to be secured.

Where those exceptions occur, the crops outstanding are reported to be in a deplorable condition, and can only be used as fodder, in consequence of the damp and discolored nature of the grain. During most of the season the weather was extremely adverse, continuous rains everywhere causing heavy floods in many localities, and resulting in much damage to crops of every description; consequently the harvest this year began late, and has been very protracted, extending over nearly three months, and is fully a month behind England.

After the completion of harvest last year, reports of that year's cereal crops throughout the United Kingdom made wheat the best of the

cereals, and about an average, quality being very good and quantity larger than expected.

Barley was variable in quality and in yield, the quantity per acre being considerably under the early estimate.

Oats were good and turned out as large in quantity as they were fine in quality, and were fair in every respect, except as to price, which was kept very low all the year, ranging from 22*s.* ($5.35) to 33*s.* ($8.03) per quarter (eight bushels), weights being from 40 to 45 pounds per bushel.

The good harvest and the large importations of wheat and flour which followed (more than three-fourths of which were from the United States and Canada), reduced prices towards the close of the year so very considerably that at the 31st of December last, American wheat stood at 46*s.* ($11.20) to 47*s.* ($11.44) per quarter of 480 pounds, and Odessa Ghirka wheat sold at 45*s.* ($10.94) per quarter in the British market, which was a fall of about 10*s.* ($2.43) per quarter on the calendar year (say from 31st December, 1879, to same date 1880). The price of British wheat did not fall so much as the quality of crop; 1880 was much superior to that of 1879, but the average, notwithstanding, showed a reduction of 4*s.* 3*d.* ($1.03 per quarter). Stocks of wheat and flour in store at the leading ports of the kingdom on the 1st of January, 1881, were small, and did not show more than a quantity equal to 3,000,000 quarters, wheat, but it was estimated that at that period farmers still held something like 8,000,000 or 9,000,000 quarters, thus making a total stock equal to about 11,000,000 or 12,000,000 quarters of wheat. The British consumption nowadays is usually reckoned to equal 23,000,000 quarters wheat; so that there was an import to cover the deficit and meet consumptive requirements of something like 12,000,000 quarters That was not thought an overestimate, and, to obtain that quantity, it was eventually found necessary by the natural action of demand and supply to advance prices toward the end of July a few shillings, but the actual state of matters did not appear to be fully discovered until the beginning of August, when it became evident that the British grain crop had suffered from the variable and unfavorable weather, which as a whole had prevailed most of the year and caused some apprehension as to the lateness and ripening of the British harvest.

This added to the unfavorable reports of the yield of wheat in America, and generally over Europe, awakened the public mind, and roused merchants and speculators to a proper sense of the country's requirements. Consequently, during the latter part of July, August, and September, prices of wheat went up about 10*s.* ($2.43) per quarter, and maize made an advance of 7*s.* ($1.70) to 8*s.* ($1.94) per quarter, other grain participating to some, but not to a large, extent in the advance.

The wet and unsettled weather which prevailed, more or less, all the season, but especially during harvest time, greatly injured the green as well as the grain crops. Hay has been a poor crop; and turnips, though they have improved, in some localities bulbing fairly, still look very poorly in many districts. Many farmers will have not much over half an ordinary yield of turnips, and the want of Swedes will be much felt in the maturing of fat cattle.

Storing of turnips has not yet become general, farmers being desirous of giving the bulbs as much time to grow as the approach of winter will permit. Potatoes are a good and large crop, considerably above an average; but disease (consequent on the excessive wet) makes rapid progress in them. Potato lifting is being proceeded with, but it proves to be a more laborious and expensive process this year than previously, consequent on the wet state of the land and the large proportion of dis-

eased tubers. Laborers have been scarce and wages higher. Previous to this year field workers for potato lifting were paid 18*d.* (36 cents) to 2*s.* (48 cents) per day, but the allowance this year has been in some cases increased to 2*s.* 6*d.* (61 cents), and even at that sum a full supply in some places is not readily obtained. Apart from other losses understood to have been suffered by farmers here this season, their outlay has been considerably increased by reason of the long-continued wet weather.

This is illustrated by the experience of one holding a farm in West Lothian, who, in contrasting his expenditure this season with that of 1880, states that it has cost him for gathering and fitting his potato crop as follows:

	£. *s.* *d.*	
In 1880. Work people	0. 12. 0	$2.92
Horsework, including drivers	0. 10. 0	2.43
	1. 2. 0	5.35
In 1881. Work people	1. 10. 0	7.30
Horsework, including drivers	1. 0. 0	4.86
	2. 10. 0	12.16

Being a difference of £1 8*s.*, equal to $6.81 per acre for labor against this year's crop. In both years a potato-digging machine had been used in raising the crop. Wheat and barley suffered exceedingly from the wet. In June and July these bade to be at least fair crops, but the bad weather and the protracted harvest have greatly damaged both. The yield of wheat and also barley, quality and weight being taken into account, must be set down as not less than 25 per cent. under the usual average.

Oats are not nearly so bad, as there is much good quality in this crop, though the yield is also deficient, and it must be reckoned at about 15 per cent. under average.

Farmers in the Lothians, as indeed throughout all Scotland, have suffered much by reason of the bad harvest this year, and a general depression prevails amongst them. So much is the depression felt that meetings of farmers and others interested in agriculture have been held in this and other leading districts throughout the country with the view of considering their position and endeavoring to obtain such legislative enactments as may ameliorate their position. Farmers complain that a long succession of seasons more or less unfavorable, the present one being the worst, together with high rents, foreign competition, want of compensation for tenants' capital expended on permanent improvement of the land, and other difficulties which they have had to contend with, have brought about the present serious agricultural depression.

As one indication of the depression, and as showing the depreciation in value of farm rents in this district, it is worthy of mention that a farm in Mid Lothian, a few miles distant from Edinburgh, was re-let lately at a rent of £875, ($4,268.18) being a reduction of 35 per cent. from the old rent, which was about £1,330 ($6,472.44) or £2 ($9.73) per acre.

Still nearer Edinburgh than the foregoing, a small holding is now occupied at about 40 per cent. less rent than it was let at by public competition five or six years ago. It is reported of five farms here in the Lothians that the tenants have lost in all £41,000 ($199,526.50), since the year 1872, and those farms are within a radius of 20 miles of Edinburgh.

Many other instances could be adduced showing the widespread downward tendency of agricultural rents throughout England, as in Scotland; and, at such a time, it is noteworthy that many landowners have voluntarily reduced their tenants' rents for the current year in proportions varying from ten to twenty-five per cent.

The members of the Scottish Chamber of Agriculture have taken up the subject of agricultural depression, which is claimed to be so prevalent, and have adopted measures with the view of remedying it. At the annual meeting of that body held in Edinburgh yesterday the drafts of two bills intended to be promoted in parliament during the ensuing session were under consideration. One of those bills is to procure the abolition of entail and primogeniture, and the other, designated "The agricultural holdings (Scotland) bill," has for its leading objects compensation for tenants' capital expended on permanent improvements, yearly leases, with two years' notice to quit from either side, and the revaluation of farms. Both bills were unanimously approved.

J. A. LEONARD,
Consul.

UNITED STATES CONSULATE,
Leith, Scotland, November 16, 1881.

COMMERCIAL AND POLITICAL CONDITION OF MADAGASCAR.

REPORT BY CONSUL ROBINSON, OF TAMATAVE.

Trade at this port has been stagnant during the last two months, especially the trade in the American unbleached sheetings and shirtings. I may say nearly null. This state of affairs is due to, first, the national holidays (the Fandroana), which commenced early in September and are not yet over. This anniversary festival commences with three days of high ceremonial, after which, the queen and court retire from the capital and make a temporary sojourn at Ambohimanga, ancient capital of the Hovas. This town is at a distance of some eight or ten miles from Antananarivo, the present capital and is one of the three towns the entrée to which is prohibited to foreigners. During the sojourn of the court there all business with the government is stayed, except it be something of the highest importance and urgency; and as it is a matter of etiquette and duty for all the wealthy and influential subjects of the queen to attend Her Majesty on all such occasions, the exodus of the court from the capital and inclosure in Ambohimanga involves the disappearance, for the time being, from the capital and other marts, of not only nearly all native merchants, but many thousands of purchasers also. This year the number of this class attending the Queen is estimated at 20,000. This alone is sufficient to cause stagnation in trade. A second cause is, at the present time, a scarcity of the five-franc pieces—only currency of the country. They are now held at a premium of 20 to 25 per cent. And a third cause of the stagnation (this relates to the trade in the American cotton cloths) is to be found in the fact that the government sold, about six weeks ago, a large quantity of these goods at auction to the native merchants, the same goods being the accumulations of receipts for duties. I have explained, in previous dispatches, the working of this rule of collecting the import duties in kind, and its disastrous effects upon the interests of the importers of the American cottons. The nature of *these goods is*

such, to say nothing of the well-known integrity of the American importers located here, as enables them to collect every yard of their duties (truth compels me to say that this is not the case with the European general merchandise brought to this market); and with this one-tenth, which the importer is compelled to bring them free of freight, insurance, and other charges, they are able to control the market a good share of the time.

In the mean time the English and French importers located here, with the assistance of their respective governments and the colonies, are straining every nerve to grasp and control the trade with this country. They have lately made arrangements to supply a want that has been much felt here, *i. e.*, better facilities for transporting merchandise from this port to the various points of trade on this coast, north and south, and the productions of the country from those points to this port. This is an enterprise that I have, in vain, been trying during the last three or four years to induce Americans to undertake. One British firm has put on a new steamer of 150 tons just brought out from Scotland. She has made one trip north, back here, then over to Reunion (ancient Bourbon) and Mauritus, back here, then south and back here, then over to Reunion and Mauritius again, and back here, and is now gone north again on her second trip in that direction, and is to continue alternately in like manner. I hope the profits will be such as to induce continuance *ad infinitum*, as the owners fully deserve success as a proper reward for their enterprising spirit.

Another steamer (about 30 tons) has been brought out from France by a Frenchman engaged in trade on this coast. It was brought out in segments, and is now being put together; and is also intended for this coast trade.

We have here a French house with chief and sub-agents, and a whole corps of employés, doing an extensive business at this port, at the capital, and at most of the points on the coast—this without regard to expense. They construct most of their buildings instead of renting, and build generally in a costly manner; and in all their operations have the appearance of the intention to stay. The headquarters of the firm (Roux de Fraissinet & Co.) is at Marseilles. Their transportation is mostly done by steamers of about 1,000 to 1,200 tons plying between Marseilles and this port, via the Suez Canal, and calling at Zanzibar and Nosi-bé, where they have branch houses. They have also two smaller steamers constantly carrying live cattle from Madagascar—generally from the west coast during the last four years—to Mauritius, Reunion, and Natal. In addition to these steamers they have every year one or more sailing vessels of lighter tonnage come from Europe, via the Cape, loaded with salt, wine, and other heavy freight.

We now have a French mail and freight steamer plying between Reunion and the French island of Mayotte, calling at Mauritius, this port, St. Marie de Madagascar, and Nosi-bé both going and coming, and making the round trip monthly. This is a fine, rapid steamer of 362 tons, and makes regular schedule time promptly. The first voyage was made in August last. The company is called "The West Maritimes," and this line is subsidized by the French Government.

The arrivals at this port of merchant steamers since the first of July last has been 18; departures the same. Five war steamers came here during the same period, one being English, Admiral Jones's flag steamer, and four French. During the month of June previous we were visited by one English and three French war steamers.

Mr. Meyer, the consul and commissaire of France, successor to Mr.

Cassas, arrived at the capital, Antananarivo, about the last of April, before my departure from that city. He soon won the goodwill of the prime minister as well as that of all others, and seemed to me to be well qualified to get on with this government in a friendly manner, and at the same time to secure the best interests, not only of the French, but of all foreigners interested. But he had a few weeks' residence only before news came of the appointment of another man to replace him. Mr. Beaudais, the new consul and commissaire, arrived at the capital on the 8th of last month, and Mr. Meyer left this port on the 27th of same, en route to Singapore, to which place he has been assigned as French consul.

Admiral Sir W. Gore Jones, late attaché to the British legation at Washington, now in command of the British East India fleet, was here with his flag-steamer Euryalus in June last; made a visit to the capital, with a party composed of members of his staff and the British consul for Madagascar residing at this port.

The admiral's visit was, according to his own statement, merely one of pleasure, to see the country and pay his respects to the Queen; but rumor would have it that he had important business to transact, such as getting a concession of a certain portion of territory on the west coast with a harbor for a naval station.

But up to the present time I have not been able to learn that there was any truth in the rumor. The party made a brilliant display and I think it probable that the principal object was to keep up British prestige with this government, as it is generally thought here that such display of naval power and official expense has great influence upon it.

Tamatave now has a weekly journal, the first printed paper in its history, the second number having appeared last Sunday morning. It is owned and edited by a French resident, and is a continuance of a written paper, manigraphed by the same editor, which had been issued during some months previous. The press just obtained is of the oldest style of hand press, and second-hand; the journal called La Cloche (The Bell), is printed on four pages 13 by 21 inches, four columns to the page.

The foregoing will give you something of an idea of what the French and the English merchants and their respective governments are doing to maintain control of commerce with Madagascar. But what are American merchants doing toward securing the share of the trade with this country that we *should have* and *can obtain* by proper effort?

The answer to this question is that nothing is being done, except by three firms in the States, and these firms restrict their exportations to two commodities, unbleached cottons and refined petroleum. No effort that can properly be called such has ever been made to increase our trade by the introduction of a larger variety of our productions. And as to the influence of our Navy in these parts, the less said thereon the better, for it is absolutely null.

In one of the conversations I had, while at the capital, with Mr. Meyer, the consul and commissaire of France, he made a remark bearing upon this point, which was so true and just that I cannot refrain from quoting it here. He asked me if our naval steamers came often to Tamatave, and I had responded that I believed our Navy had never been but once represented on the east coast, and that was by one steamer which entered the port of Tamatave about fourteen or fifteen years ago.

Your government [said he] makes a great error in that respect; you keep a fleet cruising at great expense in European waters where it is truly of no earthly use, for

all of us of Europe know what the power of the United States is without seeing your naval vessels in our ports, and in fact their presence there has no influence upon any matter, while the Malagasy, as with all like semi-barbarous people, a display of naval power has its influence, direct or indirect, upon every question. You have fine war vessels cruising in the Mediterranean and North Atlantic, and you tell me none in the Indian Ocean. I know your naval officers would not have as many opportunities to enjoy pleasant soirées out here as they have in Europe, yet when they would be really suffering for a dance they could call at Reunion or Mauritius, where they would find plenty of belles to console them.

W. W. ROBINSON,
Consul.

UNITED STATES CONSULATE,
Tamatave, November 9, 1881.

FOOD ADULTERATION IN GERMANY.

REPORT BY CONSUL SMITH, OF MANNHEIM.

I have the honor to report that the subject of adulteration of food and other materials having become a very important matter of interest throughout the world, I herewith transmit the result of my investigations regarding such adulterations in Germany, and the laws of the Empire concerning the same.

Flour made from wheat, rye, and barley, contains chemically combined nutriments, albumen, starch, and salts. Flour may be damaged without adulteration by faulty manufacture, or if the grain is not thoroughly cleaned before grinding. If not perfectly manufactured, or if overheated after manufacture, it forms itself into small balls and acquires a disagreeable odor. It also absorbs moisture from imperfect barrels and a bad taste from oils contained in the wood from which the barrels are made. It may gain dust and a bad taste from *Secale cornutum* seeds, &c., remaining after improper separating the grain from the husk. Bread made from such flour is not healthful or palatable. In order to make it palatable and salable, alum, copperas, and similar substances are used, giving the bread a grayish tint. The usual mode of adulteration is to use oxide of zinc. Chemists have found 3 to 3.5 per cent. of oxide of zinc in bread, yet zinc and copper may be discovered to a certain degree in bread baked with old wood that has been covered with these metals, the wood readily impregnating itself with these mineral elements.

Flour is also adulterated with spar (baritza), plaster of Venice, chalk, pulverized stone, &c., thus increasing the weight. Exportations have been made from Netherlands of so-called imitation flour made of crushed spar and plaster of Venice. These exportations were made to such an extent that the Prussian minister of commerce found it necessary to publish a warning against the production. It was observed that the mixture of plaster of Venice amounted to 30 per cent., while the mixture of spar showed but 16 to 20 per cent. Imitation flour is used to increase the weight of genuine flour by mixture. Vegetable substances—pease, beans, Indian corn, dried potatoes, and oats are—mixed with wheat, manufactured, and sold as wheat flour. These substances are not considered dangerous to health and are not prohibited. But the mixture of flour with spar, plaster of Venice, alum, copperas, oxide of zinc, and other mineral substances is considered dangerous, and is prohibited. Any kind of adulteration of flour diminishes its nutrimental value. Mixtures

are not always made at the place of manufacture, but more often by the retail dealer in flour, and by the baker, who thus increases the size and weight of the loaf. Confectioneries, jellies, ice cream, sirups, artificial lemonade, ginger, and candies, are often adulterated with poisonous mineral substances; ornamental candies, especially colored "produced" sugars, are often very poisonous. Cases of poisoning have been observed after eating pies and ice cream. The chemist can easily discover these adulterations. The adulteration of sugar is not carried on to a great extent in Germany. Some of the smaller factories and retail dealers use marble dust, and plaster of Venice, chalk, flour, dextrine, &c. The presence of these substances can easily be detected. Copper and zinc can be used, but no important discovery of these minerals in sugar has been made. To improve the color of sugar, ultramarine is often used in Germany. The small quantity used is not considered dangerous to health. Molasses made from any other than that made from the cane is not considered healthy, as it contains large proportions of alkaline salts. "Imitations" of cane-sugar sirup, so called, are sold, which are not made from cane molasses or sugar; they are made from potatoes, and should be called potato-starch sirup. It is made so cheap that it is fast driving cane-sugar sirup from the market, especially among the poorer classes. Potato sugar in a liquid state contains many substances dangerous to health. For the adulteration of cane-sugar sirups, starch sugar is generally used.

MEAT AND SAUSAGES.

Meats that are dangerous to health are, dead animals, animals dying from hydrophobia, milk fever, or any inflammatory disease, animals killed after typhus symptoms, animals dying when poisoned food had been eaten, meat of animals affected with trichinæ, scrofula, or tubercles. Meat spoiled by keeping too long a time after killing may become dangerous to a greater or less degree, yet under the following conditions it is certainly very dangerous, namely, meat of animals dying in a feverish condition or of consumption; meat of animals not more than eight or ten days' old. Calves are often killed at that age and used, as too much bad and diseased meat is, in the manufacture of sausages. Horse flesh is used to a great extent in this manufacture, as well as bad flour.

In order to avoid the sale of the diseased and improper meat, public slaughter-houses should everywhere exist, especially in large cities, where the opportunities of secret slaughtering are greater than in small towns. They should be under public surveillance, and no animal should be killed or meat sold without permission from the public inspector.

MILK.

Milk is adulterated and weakened in different ways: By separating the cream from the milk, depriving it of its nutriment (fat) and mixing it with pure milk; by mixing pure milk with water; by mixing milk deprived of its cream with water in order to reduce the specific weight of its normal standard. All these methods are very frequent. Other methods are used, but not so often. Additions of sugar, starch, plaster of Venice, chalk, wheat flour, dextrine, gum, boiled barley, rice, and other grain have been found in adulterated milk. Professor Fener, of Munich, found soap in milk offered for sale as pure milk. The condition and food of the cow are very important regarding the production of pure and safe milk, especially as so many babies and children are fed

upon milk—babies more often receiving that of the cow than that of the mother. Mothers are gradually giving up nursing their babies and depending too largely upon cows' milk for the baby's food. It is evident a large proportion of the great mortality among children, especially in large cities, can be traced to the use of adulterated milk. The great facility for the adulteration of milk, and the great pecuniary gain, render the temptation very strong. For instance, the milk-seller buys the milk for 14 pfennigs per liter—100 liters 14 marks. He sells—

	Marks.
6 liters of rich cream at 1.20	7.20
10 liters of coffee cream at 50	5.00
84 liters of milk at 20	16.80
	29.00
Deduct cost	14.00
Profit	15.00

making a gain of more than 100 per cent. Wealthy people can, and in many instances do, get pure milk by paying large prices, but the poor, and people in limited circumstances, find it very difficult to get pure milk, even at 20 pfennigs per liter. Milk of sick cows under medical treatment is often affected and yet sold. Adulterations with water and thin milk are difficult to discover, otherwise a chemical analysis is generally sufficient. The instruments now used by inspectors for testing weight, purity, &c., are very good and simple.

BUTTER.

Investigations show that trade butter always contains from 8 to 18 per cent. of water. Sometimes water is forced into the butter by artificial means; and then again it takes large quantities of water while in the process of manufacture. Naturally these quantities of water diminish its nutritive and preservative qualities. To preserve it a large quantity of salt is added, which increases the weight. Sometimes white cheese, potato flour, wheat flour, or a mixture of tallow and hog-fat, or tallow with oil, is added. All of these substances are easily detected. Pure butter is often mixed with artificial butter and sold as pure; this is easily detected. Butter is often colored; a substance called "Orleans" is furnished by parties who manufacture this substance and nothing else.

Other substances are used, saffron, curcuma, safflower, calendula, arrensis, campeche wood, &c. These substances are not considered dangerous to health, but they serve to cover adulteration. Artificial butter is now made and sold in large quantities under different names; it is made from mixture of fat of different animals, and materials sometimes of doubtful quality. The butter called oleomargarine is generally sold and used in Germany by the poorer classes. It is considered healthy, and is sold by its real name. This product is well known in the United States.

BEER.

German beer contains 2 to 4 per cent. of alcohol—much less than the strong English beers, which contain from 5½ to 10 per cent. of alcohol. In the manufacture of beer grape sugar is sometimes substituted for malt. Grape sugar is made from potato flour, and is quite different from malt sugar, and its use makes a very different beverage from beer properly made. It is difficult to manufacture and expensive; consequently

brewers use instead starch sugar, which contains 23 per cent. of unclean substances, which mingle with the beer and deteriorate its quality. When drank, this beer causes a heavy dull affection of the brain, and makes the drinker very stupid and sleepy. Some brewers add at least 20 per cent. of potato sugar. The same objection exists towards other substitutes for malt as sirup, molasses, malt-brewing sugar, &c. Rice and Indian corn substituted for malt are not so objectionable, but the beer so made is quite different from properly brewed normal beer, and must be drunk cold as ice can make it to be palatable. The harvest of hops in Europe is 53,000,000 kilograms (that of the world, 65,500,000 kilograms), enough to supply all demands, so that the German brewer should have no inducement to find a substitute for hops; yet substitutes are used, such as hops oil, hops aroma, extract of hops; they are very objectionable. In some cases narcotine, bixine, absinthine, extract of *cincus benedictus*, and of *meryanthes trifoliata*, have been substituted for hops. They are all objectionable, and, in some cases, dangerous. The majority of the large brewers do not use these substitutes, finding it more profitable to make honest beer. They are generally used by dealers, inn-keepers, &c. They can easily gain instruction in adulteration. In the city of Leipsic there existed, or exists, a bureau of instruction for the chemical manufacture of different products under the direction of a teacher, who, for a fee of 10 marks, teaches how to make beer without hops and malt, making a profit of 300 per cent. Factories for the manufacture of essential oils recommend similar methods. New methods of adulteration are every day invented and published. Pasteur discovered, in the year 1859, that the beer contained from 2 to 9 per cent. of glycerine. Grossmayer has lately discovered and proved that Pasteur's statement was wrong—that beer contains only a very small proportion of glycerine ($1\frac{1}{2}$)—5 parts in 10,000 parts of beer.

Many brewers relying upon Pasetur's statement have added glycerine to the beer—a very objectionable addition, especially as the glycerine used is not pure and clean.

Beer made by the patents of Hillman and Spencer in London (*chalk-saccharut*), or of Mr. Gaston's use of phosphoric natron, has not yet been sufficiently investigated to give a correct opinion.

It is very doubtful whether the use of "salicylsäure" for the preservation of beer is healthful.

All substances used to give beer a color are objectionable. They are generally used to cover adulteration or some defect in manufacture. A favorite "*couleur*" is chicory. The Kingdom of Bavaria has made effective laws regarding the manufacture of beer. Only the use of barley, malt, hops, and water is permitted in its manufacture, which is in all cases under public surveillance.

Wine is the product of the juice of the grape made by alcoholic fermentation, free from mixture of foreign substances or adulterations. Methods to improve inferior wines and to cure spoiled wines have been invented by Chaptal, Gall, and Petiot, and are well known to venders. These methods are only permitted on condition that the products shall be sold as wines thus prepared. The use of starch sugar in wine is objectionable and by law prohibited. Yet large quantities are used for that purpose by dishonest venders. If pure starch sugar is used, it is almost impossible by any known chemical process to ascertain its presence. Impure sugar will discover itself by chemical process. Sometimes white wines are changed into red wines by the addition of coloring substances; these substances are very often injurious to health. They can also be discovered by chemical process. The mixture of wine with

ethereal aromatic essences, glycerine, and similar substances, in order to give the wine appearance of better quality, is objectionable, and frequently injures the health of the drinker. They can be discovered by chemical process.

The mixture of the "must" with plaster of Venice, alum, lead-salts (*bleisalze*), is injurious to health, and can be discovered by chemical process. The method of Pasteur to preserve wine is very good. Additions of sulphurous substances are either forbidden or only permitted to a trifling extent. Salicylsäure is very objectionable.

Liquids with the appearance of wine are mixed with spirits of wine, "*weinstein*," sugar ethereal, and aromatic substances, &c., and sold as wine. It is forbidden by law in Germany, but a large amount of so-called wines are sold. Coffee is subject to numerous adulterations; the berries are often mixed with sea-gravel, the color of which resembles that of the coffee. There are special factories for the manufacture of imitated green coffee berries, made from clay or earth of some kind; the imitation is almost perfect, and quite difficult to discover. Coffee berries are colored with indigo, curcuma, Berlin blue, chrome yellow, &c. Sometimes they are put in barrels with lead bullets, and the barrels rolled in order to give the berry a darker color. These processes are very injurious to the health of the drinker; all coffee berries should be carefully washed before roasting.

The opportunities for the adulteration of coffee are much greater where it is sold roasted or ground. Mixtures of earth, sugar, flour, and coffee-extract are frequent; seeds, roots, rye and other kinds of grain, pease, beans, germs, stones of dates, chicory, and mineral substances, venetian red, are extensively used. Ground coffee is often mixed with ground and dried liver of animals. All these adulterations can be discovered. Tea is adulterated in China and in the large ports of importation by mixing the better qualities with the poorer. It is colored black with graphite, and colored green with Prussian blue and curcuma. Leaves thus treated receive a portion of porcelain dust. Leaves of other plants and trees, hawthorn willows, strawberry, &c., are colored with substances dangerous to health, and mixed with genuine tea leaves. The imperial health office at Berlin has traced cases of lead poisoning to tea packed in lead boxes, the tea having contracted the lead from the packing-case. Adulterations can be discovered by chemical or microscopic observations. In England all tea is examined at the custom house, so that only pure tea is imported. The adulterations there occur after it has passed from the first owners. Chocolate is adulterated by mixture of starch, flour, mutton-fat, sesam oil, cacao shells, beans, and similar substances. These substances are not injurious to health, but they are not chocolate, and should not be sold as such. It is sometimes adulterated by addition of chalk, ocher, and similar indigestible substances injurious to health.

It is difficult to discover these adulterations. Mineral waters are manufactured to a large extent, and very often by unskillful persons. They are often made from waters of other springs than the one represented. Mineral substances are added (arsen, salzsäure, Schwelsäure); sometimes they contract copper or lead from the barrels or vessels in which they have been kept. Chemical analysis will always detect these adulterations. In Germany it is forbidden by law to sell artificial waters, calling them natural waters.

PETROLEUM.

There is no general law in Germany regarding the sale of petroleum, although in some places local laws exist prohibiting the sale when it de

velops under 38°—respectively 43°—combustible vapors. Profitable adulterations are made by adding naphtha and other low boiling substances to good petroleum. In order to increase the specific weight, brown coal oil is often used.

Under the name of liquid gas, security gas, petroline, &c., dangerous mixtures of petroleum are sold, the representation that they have been deprived of their explosive qualities not being reliable. Patents are taken out in the United States for the addition of bark, roots, salts, gum, &c., in order to take away the explosive qualities of adulterated petroleum. Mr. Chandler's report to the department of health, New York, on this adulteration is both interesting and exhaustive. The laws of England and Belgium regarding the inspection and sale of petroleum are very good.

The attention of the German Government has been called to this subject by the Imperial health office, at Berlin, the Polytechnicum, at Darmstadt, and the trade union, at Reichenau, near Zittau, and others. Petroleum has been sold that developed on investigation with the temperature 13° 15° 22° combustible vapors.

Cloths, but not to a large extent, are made poisonous by the use of improper coloring matter. Diseases of the skin have been produced by wearing highly colored stockings. Smooth tinted paper and visiting cards often contain large quantities of lead and zinc. Paper in which food is packed or placed should never be colored. White or coarse brown paper should always be used. Paper hangings and green blinds often contain poisonous colors; children's toys, dolls, &c., painted with colors are often dangerous to health.

In the enameling of pottery, lead, copper, and similar poisons are sometimes used. Britannia metal, originally made from zinc and antimony, now frequently contains lead in order to reduce their price.

Laws of the German Empire, passed May 14, 1879, concerning the trade in articles of food and commerce:

Section 1 places the trade in articles of food, liquids, toys, paper hangings, colors, pottery, and petroleum under the control of the law.

By section 2 officers of the police are authorized to enter any place of sale during the usual business hours and take samples of goods sold, they paying the market price for the same.

By section 3 if parties have been previously punished for selling adulterated goods, the police can at discretion, during the usual business hours, enter the premises and make search for adulterated goods.

Section 4 recites the local laws of the States of the Empire.

Section 5 authorizes the Imperial Government—

1st. To establish methods of preparation, keeping, and packing articles of food intended for sale.

2d. To forbid the sale and offering for sale of articles of food under names concealing its real nature.

3d. To forbid the sale of animals or meat infected with disease.

4th. To forbid the use of certain substances and colors in the preparation of articles of clothing, toys, paper hangings, pottery; also the sale and offering for sale such articles.

5th. To forbid the sale or offering for sale petroleum of a certain quality.

By section 6 the manufacture, sale, and offering for sale of articles intended for the adulteration of food can be prohibited or restricted by the Imperial decree.

By section 7th such decrees are to be submitted to the Imperial Parliament on its reassembling.

By section 8 convictions under sections 5 and 6 are subject to a fine of 150 marks, or personal arrest.

By section 9 parties refusing the inspections of the police, or declining to sell samples to the police, are subject to personal arrest and a fine from 50 to 150 marks.

By section 10 imprisonment for not longer than six weeks, and a fine for no larger sum than 1,500 marks can be imposed on parties who—

1st. Imitate or adulterate articles of food, liquids, &c., for purposes of deception in trade or commerce.

2d. Who knowingly sell or offer for sale, under a false name, intended to deceive, adulterated, imitated, or spoiled articles of food.

By section 11, if article 10 has been violated through negligence, then a fine of 100 marks or personal arrest may take place.

By section 12 imprisonment and loss of civil honors can be imposed on parties who—

1st. Purposely manufactured articles of food and liquids which are dangerous to health, or who purposely sell, offer, or bring into trade such dangerous articles.

2d. Purposely manufacture, sell, offer, or bring into trade articles of clothing, toys, paper-hangings, pottery, petroleum, injurious to human health. Should such action result in serious injury to human health, or death, the punishment is confinement in the house of correction for five years.

By section 13 if the person who violates section 12, and destroys human health knowingly, the punishment is ten years in the house of correction, and in case of death confinement not less than ten years or for life.

By section 14 if a person violates sections 12 and 13 through negligence, then a fine of one thousand marks, or imprisonment for six months ensues on conviction. If through negligence human health has been injured, imprisonment for one year, and if death ensues, imprisonment from one to three years.

Section 15 authorizes the destruction of all articles condemned under sections 8, 10, 11, 12, and 14.

Section 16 authorizes the publication of the judgment, if the prisoner is convicted, at his expense. If not convicted, then the state must publish his acquittal at its own expense, if requested by the accused party.

By section 17 all fines recovered by the officers of inspection are used to pay the expenses of the respective bureaus of inspection.

It is anticipated that more stringent laws regarding adulteration will be passed at the next meeting of Parliament. The present laws are strictly observed in most parts of Germany, very much to the benefit of the people, not only by giving them better food, but by calling their attention to the quality of food that they eat. The comprehensive laws on this subject observed in London are making it as far as the matter of food is concerned, the healthiest city in the world. We cannot too soon pass rigid laws against adulterations in the United States, where new lands and broad fields should furnish its people with better and cheaper food than any other nation.

EDWARD M. SMITH,
Consul.

UNITED STATES CONSULATE,
Mannheim, December 9, 1881.

MINING AND METALLURGY OF RUSSIA.*

REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.

The figures and statistics in the following resumé of the mining and metallurgical industries of Russia in 1879, are taken from a report of Mr. K. Skalkofski, subdirector of the department of mines. They show that Russia's mining industries are constantly increasing in importance, but are still far from being able to supply the country's demand for metals and metallic goods. Among other things it is shown that Russia's petroleum production is constantly increasing, to the detriment of the American article.

The Russian product rules the market as far north as Nijnii-Novgorod; since—which must eventually occur—the obstacles in the way of transportation are overcome, there is no doubt but that Russia's petroleum will command the Russian and the Mediterranean markets, if not also a large portion of central Europe.

The chief obstacles to the development of the Russian petroleum trade have been a lack of harmonious action among well-owners, the difficulty of transportation, and the lack of wood in and about the oil districts.

American and European enterprise is gradually removing the first; pipe lines, now in the course of construction to convenient points for refining and shipping, will overcome the second, whilst a line of steamers constructed to carry the oil in bulk, and a process recently invented for solidifying the oil, have, in a great measure, overcome the difficulty in providing proper receptacles.

The extension of the Russian petroleum trade means war on that of America, and although the crude Russian oil does not yield so great a percentage of illuminating fluid as the American article, its excessive abundance and cheapness justify the belief that such a war must terminate disastrously for the American article as far as European trade is concerned.

The Russian journal Listock, of the 19–30th of November, 1881, contained the following paragraph, viz:

> The Novosty reports that it hears from authentic sources that the ministry of finances is now engaged in considering the positive interdiction of the export of naphtha from Russia, in order to save this valuable article from the *exploitation* of foreigners, and to limit the export of the products thereof.

In connection with the subject of mining and metallurgical industries, the following table shows the most important articles in these branches produced in 1879, and also during the five preceding years:

Russia's production of metals and minerals.

Articles.	1874.	1875.	1876.	1877.
Gold ..... poods..	2,028	1,995	2,054	2,502
Platina ..... do...	122	94	96	105
Silver ..... do...	720	601	683	681
Lead ..... do ..	81,150	66,060	71,278	73,577
Copper ..... do...	199,527	222,769	236,452	213,931
Zinc ..... do..	251,811	243,280	282,198	282,724
Iron ore ..... do ..	23,212,772	26,061,323	26,956,850	24,403,319
Iron ..... do...	17,975,120	18,547,659	17,869,305	16,264,647
Steel ..... do...	526,778	789,253	1,093,719	2,702,863
Coal ..... do...	78,813,137	104,348,067	111,302,028	110,120,254
Naphtha ..... do...	5,208,710	8,174,440	10,937,100	12,511,133
Cast-iron ..... do...	2,626,061	2,774,174	2,966,410	3,337,053
Chromite ..... do...	316,561	209,848	58,167	57,000
Cooking salt ..... do...	46,947,516	37,991,399	43,806,762	28,952,185
Metal coined ..... roubles..	30,620,322	27,978,831	65,368,555	58,545,133
Laborers in mines, for mills, &c.... number..	244,369	267,990	286,122	256,919
Laborers killed and injured	472	478	410	401

* In connection herewith the department would refer also to No. 9 (July), pp. 180–182, for a former report upon this industry.

Russia's production of metals and minerals—Continued.

Articles.	1878.	Average.	1879.	Increase or decrease.
Gold ..... poods..	2,572	2,230	2,631	+ 401
Platina ..... do...	126	109	138	+ 29
Silver ..... do...	699	677	697	+ 20
Lead ..... do..	85,281	75,450	82,842	+ 7,383
Copper ..... do...	214,864	217,510	190,688	− 26,822
Zinc ..... do...	283,398	269,882	263,588	− 6,294
Iron ore ..... do...	25,472,540	25,221,360	26,412,806	+ 1,191,446
Iron ..... do...	16,668,717	17,465,081	17,100,842	− 364,239
Steel ..... do ...	5,801,754	2,182,873	12,929,170	+10,746,297
Coal ..... do...	154,034,302	111,723,557	178,238,013	+66,514,456
Naphtha ..... do...	15,324,167	10,431,110	21,475,969	+11,044,859
Cast-iron ..... do...	3,247,668	2,994,271	3,161,421	+ 167,150
Chromite ..... do...	955,367	332,314	642,115	+ 309,801
Cooking salt ..... do...	47,678,528	41,075,278	49,929,889	+ 8,854,611
Metal coined ..... roubles..	48,740,853	46,249,738	42,040,825	− 4,208,913
Laborers in mines, for mills, &c.... number..	282,959	267,671	292,046	+ 24,375
Laborers killed and injured	425	437	611	+ 174

The production of gold decreased in East Siberia in consequence of the increased cost of the necessaries of life, of transportation, of wages, and of the drought.

In West Siberia and the Ural districts the production increased.

In iron ore, steel, coal, naphtha, and salt a very large increase is manifest. Steel has made great progress, especially in St. Petersburg, Poland, and the Ural districts, and this great impulse to this branch of manufacture has been given by the government's demand for steel rails and the allotment of premiums.

Nevertheless, this production of iron and steel barely suffices for half the demand.

The great increase of the "out-put" of coal is owing to the increased productiveness of the mines of the Don basin, of Poland, and of the Moscow basin.

In ten years the yield of coal has almost quadrupled in Poland. But this production is not sufficient for the local demand, which must be met by Silesian coal.

A projected railway from Dombrovad to Ivangorod will, it is thought, greatly increase the coal yield.

The increase in the naphtha yield is explained by the gradual displacement of the American by the Russian article.

Besides those named in the preceding table there was a small production in the following articles, viz: Tin, 125 poods, or 31 less than in the preceding year; smaltine (cobalt-speiss), 909 poods; graphite and nickel were not worked.

The small demand for the latter article does not encourage trade. The only existing factory in Russia produced, up to 1879, 1,200 poods nickel powder, which was almost exclusively exported, the pood costing 110 roubles at the works. The production of glauber salts was 83,000 poods, or 8,637 less than in 1878.

Concerning the present yield of precious stones no positive data exist. Their working is a royal prerogative, and nothing is known of them beyond the number of the mines.

The political condition of the country from 1876 to 1878 explains the large decrease in the production of the mines.

The fair at Nijnii-Novgorod is the most important market for Russian metals.

In 1879 there were imported for this fair—

Articles.	Imported.		Unsold.
	Poods.	*Roubles.*	*Roubles.*
Iron, various kinds	5,544,600	10,685,000	690,000
Steel	55,000	151,700	26,100
Cast-iron	890,000	1,283,000	24,900
Copper	10,280	141,050	118,200
Iron and steel manufactures	.....	2,728,750	513,000
Copper and tin	.....	1,428,800	160,000
	.....	16,418,300	1,532,200

The imports increased 1,053,300 roubles, and the sales 1,121,100 roubles, as compared with 1878.

Trade in salt, kerosene, naphtha, &c., at the the fair of 1879, was:

Articles.	Poods.	Roubles.	Roubles.
Salt	5,259,900	2,760,000	1,629,600
Kerosene	1,600,000	1,600,000	.....
Naphtha	1,200,000	88,000	.....
Naphtha residue	200,000	135,000	62,500

The metal trade was very active and prices for iron and steel goods run from 10 to 18 per cent., copper goods 12 per cent. higher than in 1878.

Besides Nijnii-Novgorod, there are many other places, chiefly on the Volga, important for their metal trade, such as Laisheff, Kasan, Simbirsk, Saratoff, and Rostoff.

Prices at the Nijnii-Novgorod fair were in 1879; pig-iron per pood, 70 kopecks; iron sundries per pood, 140 to 240 kopecks; bar iron per pood, 160 to 180 kopecks; rail-iron per pood, 160 to 165 kopecks; hoop-iron per pood, 165 to 175 kopecks; rod-iron per pood, 140 to 215 kopecks; rolled iron per pood, 170 kopecks; for rails per pood, 205 kopecks; boiler-plates per pood, 220 to 325 kopecks; sheet-iron per pood, 245 to 310 kopecks; cement steel per pood, 220 to 340 kopecks; cast iron per pood, 70 to 225 kopecks; nails per pood, 170 to 678 kopecks; piece copper per pood, 1,350 kopecks; sheet copper per pood, 1,500 kopecks; salt per pood, 52 to 53 kopecks; kerosene per pood, 90 to 125 kopecks; crude naphtha per pood, 72 to 75 kopecks; naphtha residue per pood, 65 to 70 kopecks.

In Finland prices for metal goods were in 1879 as follows, viz, per hundred weight: copper, 90 marks; pig-iron, 6 marks; bar-iron, 15 marks; puddle steel, 17½ marks; sheet-iron, 18¾ marks; sheet-steel, 22½ marks; wrought metal, 25 marks.

In Southern Russia prices were in 1879: cast iron per pood, 60 to 65 kopecks; bolt-plates, 180 kopecks; nails, 240 kopecks.

In Poland metal prices in 1879 ranged as follows, viz, per pood: zinc, 250 to 257 kopecks; sheet copper, 1,410 to 1,480 kopecks; pig-iron, 95 to 180 kopecks; enameled vessels, 235 to 280 kopecks; puddled iron, 170 to 200 kopecks; axles, 260 to 360 kopecks.

For anthracite coal in 1879 the prices per pood were as follows: At the mines, lump, per pood, 10 kopecks; mixed, 7 to 8 kopecks; in Rostoff, 14 kopecks; in Taganrog, 16 kopecks.

In Poland prices were as follows, viz: Coarse, 3½ to 6 kopecks per pood; middling, 2½ to 5 kopecks per pood; small, ¾ to 1¾ kopecks per pood.

Naphtha prices in the Baku district were as follows: Naphtha, ½ to 20 kopecks per pood; earth, 15 kopecks per pood; asphalt, 35 to 45 kopecks per pood; lubricating oil, 400 to 500 kopecks per pood.

In 1879 the export from Baku was:

	Poods.
Crude naphtha	6,562,140
Naphtha residue	5,528,208
Black naphtha	436,673
Asphalt	10,491
Naphtha earth	3,725
Lubricating oil	409
	12,514,646

The foregoing figures relating exclusively to the domestic trade, we will now consider Russia's foreign trade in the products of mines and metallurgical industries during the year 1879.

Statement of the import and export of metals, minerals, and metallurgical products across the European frontier in 1879.

Articles.	Imports.	Exports.
	Poods.	*Poods.*
Bar-iron	6,036,000	406,405
Plate-iron	2,367,069	140,257
Rails	169,106	.....
Cast iron	11,317,642	111,008
Sheet-iron	105,907	.....
Steel	1,712,525	841
Steel rails	4,662,250	.....
Copper	554,373	6,422
Copper foundings	77,286	.....
Tin	93,403	.....
Platina	.....	78
Quicksilver	4,268	.....
Lead	1,159,900	.....
Zinc, lumps	98,975	16,250
Zinc, sheets	163,621	
Coal	87,794,659	133,372
Sulphur	628,695	.....
Salt	9,949,821	1,688
Kerosene	1,711,838	.....
	Roubles.	*Roubles.*
Gold in ingots and coins	7,232,274	4,890,578
Silver	6,640,579	2,225,275
Manufactures of precious metals	604,577	129,600
Manufactures of metal	19,955,383	202,490
Machinery	47,351,023	107,317

Coal, pig iron, iron, steel, copper, kerosene, salt are the most important products of the mining and metallurgical industries, which are imported across the European frontier, and the following table shows the amount and origin of these imports:

From—	Coal.	Pig-iron.	Iron.	Steel and steel rails.	Copper.	Kerosene.	Salt.
	Poods.	*Poods.*	*Poods.*	*Poods.*	*Poods.*	*Poods.*	*Poods.*
Great Britain	70,558,995	9,366,728	2,038,189	3,088,514	335,975	122,364	2,682,064
Germany	12,790,467	2,522,172	3,766,807	1,739,958	181,814	952,623	4,532,233
Austria	2,818,760	61,959	207,077	27,657	828	7,210	1,148,042
France	1,400,295	15,590	55,791	8,073	11,497	.....	329,573
Turkey	60,582	.....	.....	.....	.....	7,469	.....
Belgium	12,837	399,702	2,252,814	1,940,088	5,777	.....	.....
Holland	3,000						
Norway and Sweden	2,605	154,553	182,028	110,104	1,639	.....	77,570
Italy	.....	15,327	.....	.....	.....	6,416	49,244
United States	.....	2,350	.....	154,405	.....	547,464	.....
Roumania	.....	.....	6,365	.....	1,433	.....	70,202
Spain	.....	.....	.....	.....	.....	.....	746,569
Portugal	.....	.....	.....	.....	.....	.....	215,590
Denmark	.....	.....	.....	.....	.....	.....	8,062

The following table shows the export and import of metals, minerals, and metallic goods across the *Asiatic* frontier in 1879:

Articles.		Import.	Export.
Bar-iron	Poods.	39,519	71,347
Iron plates	do.	15,556	26,129
Pig-iron	do.	73	6
Sheet-iron	do.	1,402	.....
Steel	do.	7,107	15,479
Steel rails	do.	32,760	.....
Copper	do.	5,694	23,189
Tin	do.	831	.....
Coal	do.	106,270	.....
Sulphur	do.	1,110	.....
Salt	do.	8,475	4,733
Kerosene and naphtha	do.	7,616	275,631
Gold	Roubles.	154,893	931,727
Silver	do.	741,368	2,140,374
Articlesof precious metals	do.	10,518	5,982
Metals	do.	365,719	165,055
Machines	do.	157,825	.....

The following table shows the principal metals and minerals imported across the *European* and *Asiatic* frontiers during the five years 1875–1879:

Description.	1875.	1876.	1877.	1878.	1879.
	Poods.	*Poods.*	*Poods.*	*Poods.*	*Poods.*
Pig-iron	3,508,069	2,965,032	3,229,269	6,400,298	11,317,715
Bar-iron and iron rails	8,912,851	6,669,254	4,189,507	5,630,302	6,244,625
Iron plates	1,896,696	1,958,362	1,369,357	1,903,237	2,382,625
Rolled rails	6,810,202	9,675,819	10,422,111	9,475,484	4,695,010
Copper	361,448	358,474	189,571	528,814	560,067
Coal	61,199,280	88,237,761	97,864,923	108,110,396	87,900,929
Salt	11,827,623	17,280,621	6,189,989	10,060,127	9,958,296
Kerosene	2,660,408	2,665,679	1,701,864	1,998,377	1,719,454

The consumption of explosives in the mining industries according to the customs returns were:

Substance.		1878.	1879.
Blasting powder	poods.	10,669	8,245
Dynamite	do.	10,751	6,821

The following table exhibits Russia's consumption of the products of mining and metallurgical industries and what proportion thereof is made by the native production.

Since it is seldom possible to determine the origin of the exported metals and minerals, whether Russian or foreign, the total export has been subtracted from the Russian production, as though the exported metals were exclusively of Russian origin.

Articles.	Produced in Russia.	Transported from abroad.	Russia's consumption.
	Poods.	*Poods.*	*Poods.*
Gold*	2,209	515	2,544
Silver*	4,100	8,112	4,012
Platina	65	.....	65
Copper	161,077	560,067	721,144

*These amounts are obtained by reducing the metal coined at the rate of 13,755 roubles to the pood gold, and 910 roubles to the pood silver.

Articles.	Produced in Russia.	Transported from abroad.	Russia's consumption.
	Poods.	*Poods.*	*Poods.*
Lead	82,842	1,167,841	1,250,683
Zinc	287,022	263,487	550,509
Pig-iron	26,301,792	11,317,715	37,619,507
Bar-iron and rails	12,325,554	6,244,645	18,570,179
Iron plates	4,131,150	2,382,625	6,513,775
Steel rails and steel	21,893,413	6,414,942	28,308,355
Coal	178,104,641	87,900,929	266,005,570
Sulphur	21,196	629,805	651,001
Salt	49,923,458	9,958,296	59,881,754
Kerosene	6,607,087	1,719,454	8,326,541

From this table it will be seen that Russia produces the following percentage of her consumption, viz, of iron, 65 per cent.; steel, 77 per cent.; copper, 22 per cent.; zinc, 51 per cent.; coal, 67 per cent.; salt, salt, 83 per cent.; kerosene, 79 per cent.; sulphur, 3 per cent.

A statement of the receipts from mines is given below. It is, however, but a partial one, and by no means represents the entire income of the government from these sources.

1.—*Tax on mines.*

	Roubles.
1875	2,711,391
1876	3,078,390
1877	2,711,686
1878	862,642
1879	855,671
Average	2,043,956

2.—*Income from government mines.*

1875	4,074,338
1876	3,196,258
1877	1,835,607
1878	1,993,970
1879	2,697,066
Average	2,759,447

3.—*Income from orders from the department of war, marine and ways and communications.*

MARINE.

1875	3,269,083
1876	2,853,458
1877	4,551,111
1878	4,771,221
1879	*1,581,304
Average	3,414,234

The following table shows the progress of the mining industry during the last 50 years, as far as reliable data exist. The production of the most important metals and minerals was in poods.

	Gold.	Silver.	Platina.	Copper.	Pig-iron.	Coal.	Salt.	Naphtha.
1825	237	1,140	12	203,042	9,644,472	.....	.....	.....
1830	383	1,282	107	238,995	11,169,328	640,241	20,920,393	261,000
1835	393	1,212	105	240,204	10,501,146	634,225	22,500,000	348,956
1840	458	1,280	108	280,918	11,331,510	873,355	27,195,572	337,009
1845	1,307	1,192	47	254,700	11,432,645	1,684,748	55,476,527	327,166
1850	1,454	1,068	10	393,618	13,892,325	3,540,000	24,829,009	255,000
1855	1,649	1,043	1	378,618	15,310,616	4,213,576	32,224,453	.....
1860	1,491	1,070	61	315,693	18,174,125	8,000,000	26,109,602	.....
1865	1,576	1,084	139	253,037	16,046,191	12,679,311	29,058,933	554,291
1870	2,155	868	119	306,387	19,503,407	22,163,107	29,013,458	1,704,455
1875	1,995	601	94	229,291	23,255,068	79,444,323	37,591,399	8,074,440

*This item is, in reality, much greater for this year as the accounts have only been made up in part.

Until 1862 no statistics of the mines in Poland and Finland were kept, and they are consequently excluded entirely from the foregoing table.

EDGAR STANTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, Russia, December 2, 1881.

TRADE AND EXPORTS OF MARACAIBO.

REPORT BY CONSUL PLUMACHER.

While inclosing the returns of exports from Maracaibo for the past quarter and for the calendar year 1881, I beg to mention in detail the movement in the various products of this country as compared with the year 1880.

COFFEE.

This article for 1880 shows an exportation from Maracaibo of 23,678,040 pounds, and for 1881, 27,800,466 pounds, with, however, a steadily decreasing value, that of the crop of 1880 being $3,901,222.26, United States gold, as against $3,219,380.43 for the year 1881, although in the latter period the amount exported was 4,122,426 pounds in excess of 1880.

CACAO.

This product shows a decreased exportation, but with much improved prices. Cacao must ultimately be, in Venezuela, a most important and lucrative branch of trade.

The quina bark shipped from this port is almost exclusively of Colombian production, sent from all parts of the State of Santander. Forests of this valuable tree no doubt exist in Venezuela, but from lack of enterprise and funds, no organized exploration has as yet been made.

Recent discoveries in Columbia of immense tracts covered with the cinchona, have given, during the past year, new impetus to the exportation of bark through Maracaibo.

The shipments of hides and skins have nearly doubled in 1881, which is equally true of the balsam copaiba.

No other changes of note have taken place, although the low prices of coffee, and dullness in other articles of exportation, have considerably reduced the actual value of the articles exported, although the gross quantity has been largely increased.

For the year 1880, the total value of all exportations, as filed in this consulate, was $4,188,617.12, United States gold, as against $3,588,822.85 for 1881.

Although the United States consume the bulk of Venezuelan exports, it is still a matter of regret that England and the continent of Europe virtually monopolize the trade in Venezuelan imports.

With the exception of flour, petroleum, lard, and a few miscellaneous articles, we sell scarcely anything to the people of this country.

Our sheetings, prints, calicoes, and cotton goods generally, which are universally acknowledged to be the best in the world, find no place in this consular district, German, French, and English goods of this class predominating.

I again refer with special emphasis to the necessity of sending capable and zealous agents to this country to build up our trade and create a demand for American goods.

Trade representatives show much energy in this matter, and we are constantly hearing of the establishment of foreign branch houses in various interior localities, where, by carrying on both a buying and selling business, double profits are made.

In some interior districts but little cash changes hands, the foreign goods being made payable at long credits in native products, and although this may not appear a *safe* business, yet, under favorable circumstances, the profits are so enormous as to more than balance the losses caused by periods of depression, bad crops, or political outbreaks.

From the tone of recent letters received at this consulate from American exporters, I am pleased to see that our merchants have commenced to appreciate the situation, and seem to be inclined to show more care and energy in their efforts to secure this trade. An honest, zealous struggle is all that is needed, but it must be remembered, and it cannot be too strongly impressed upon our commercial houses, that the day is past when goods unsalable in other localities could find an easy market in South America.

Referring to my dispatch No. 81, of the 15th of April last, I beg to state that, in my judgment, the scheme therein proposed of establishing a direct line of steamers from New Orleans to Maracaibo, would do much to enhance our commercial importance, and it is to be hoped that the produeers of the Mississippi Valley will take sufficient interest in the matter to make it an accomplished fact.

E. H. PLUMACHER,
Consul.

UNITED STATES CONSULATE,
Maracaibo, January 9, 1882.

THE NAVIGATION OF MARACAIBO.

REPORT BY CONSUL PLUMACHER.

I herewith inclose the report upon navigation for the year 1881. I will take the liberty of making a separate dispatch upon the commerce of this consulate, believing that in this manner I can more clearly express my views as to the best methods of forwarding our commercial interests, to which end all my labors have been directed. It is much to be regretted that the United States have a very poor representation as to vessels and tonnage visiting this port. In my judgment, this arises in a great part from the present navigation laws of our country, which render it impossible for American ships to compete on equal terms with those of other nations engaged in this trade.

In this connection I would respectfully remark that I believe a very slight effort on the part of our government could secure the passage of a discriminatory treaty which would give American ships great advantages.

This being a diplomatic, rather than a consular point, I feel that I may be somewhat overstepping my duty in referring to it, and for that reason I do not enter into details.

The inclosed report shows a slight falling off in the number vessels visiting this port as compared with the year 1880. British vessels, with

the exception of the regular packet steamers, have almost ceased to appear, while French tonnage has perceptibly increased.

The German, Dutch, and Scandinavian nations make at all times an almost uniform showing, and secure a large proportion of the carrying trade.

During the past year an additional screw steamer of American build has been placed on the lake, while a stern-wheel steamer, sent from New York in sections, is now doing a thriving river trade as far as the Colombian frontier. On this same route a company of Venezuelan capitalists have also placed an improvised steamboat, made from a large barge, and the newspapers are loudly announcing the fact as the "herald of freedom from foreign enterprise." It is hardly necessary to state, however, that the engines and boiler of this experimental craft are of foreign construction.

The British Atlas Steamship Company has placed its two steamers, plying between this port and New York, under the Spanish flag, in order to touch at the various West Indian Spanish ports. This company is by no means favorably looked upon by the business houses of Maracaibo, and the general opinion seems to be that its policy is one of entire disregard for the convenience and interests of its shippers.

E. H. PLUMACHER,
Consul.

UNITED STATES CONSULATE,
Maracaibo, January 7, 1882.

THE RUSSIAN MERCHANT MARINE IN JANUARY, 1880.

REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.

The following figures are taken from the register of the Imperial Company for the furtherance of the Russian Merchant Marine and are compiled from the returns of the customs authorities of the different ports of entry.

It should be stated that the tonnage is still determined after the old style, and that Moorsom's method of determining a ship's capacity was first introduced in 1879, and gives in comparison to the former method a reduction of from 10 to 30 per cent. in the tonnage.

Vessels.	Sailing-vessels.		Steamers.	
	Ships.	Tonnage.	Ships.	Tonnage.
WHITE SEA.				
Vessels of 25 lasts and under	353	5,908	3	57
Vessels of 25 to 49 lasts	182	6,099	4	158
Vessels of 50 to 99 lasts	36	2,253	1	61
Vessels of 100 to 199 lasts	5	610	3	410
Vessels of 200 to 299 lasts			1	259
Total	576	14,870	12	945
BALTIC SEA.				
Vessels of 25 lasts and under	147	2,483	16	267
Vessels of 25 to 49 lasts	137	5,047	14	469
Vessels of 50 to 99 lasts	178	12,674	11	736
Vessels of 100 to 199 lasts	139	18,047	9	1,363
Vessels of 200 to 299 lasts	13	3,073	6	1,436
Vessels of 300 to 499 lasts			6	5,173
Total	614	41,324	62	9,378

Vessels.	Sailing-vessels.		Steamers.	
	Ships.	Tonnage.	Ships.	Tonnage.
BLACK SEA.				
Vessels of 25 lasts and under	645	11,478	14	245
Vessels of 25 to 49 lasts	426	14,306	12	428
Vessels of 50 to 99 lasts	119	7,990	9	621
Vessels of 100 to 199 lasts	93	12,091	10	1,138
Vessels of 200 to 299 lasts	16	3,736	.....	.....
Vessels of 300 to 499 lasts	4	1,353	.....	.....
Total	1,303	50,954	45	2,432
CASPIAN SEA.				
Vessels of 25 lasts and under	452	8,342	1	32
Vessels of 25 to 49 lasts	246	8,171	5	205
Vessels of 50 to 99 lasts	197	13,705	5	442
Vessels of 100 to 199 lasts	90	12,629	14	1,048
Vessels of 200 to 299 lasts	15	3,538	8	1,816
Vessels of 300 to 599 lasts	7	3,047	2	830
Total	1,007	49,432	35	5,363
FOR ALL FIVE SEAS.				
Vessels of 25 lasts and under	1,789	31,891	51	856
Vessels of 25 to 49 lasts	1,291	43,662	60	2,103
Vessels of 50 to 99 lasts	682	46,591	42	2,943
Vessels of 100 to 199 lasts	376	49,040	58	8,612
Vessels of 200 to 299 lasts	48	11,249	27	6,345
Vessels of 300 to 499 lasts	11	4,400	30	21,336
Total	4,197	187,433	268	42,195

* The last equals 2½ tons.

It will be seen from these figures that for sailing-vessels, both as to number and tonnage, the sea of Azof comes first, then the Caspian and Baltic Seas.

The Black Sea surpasses all the others in steamers, whose tonnage is greater than that of all the other seas combined.

Since steamers, on the average, make three voyages to one of a sailing-vessel, the strength of the merchant marine expressed in lasts of sailing vessels would be Black Sea, 103,000; Baltic Sea, 69,000; Caspian Sea, 65,000; sea of Azof, 58,000; White Sea, 17,000.

The following table shows the average tonnage of both sailing vessels and steamers in these five seas:

	Steamers.	Sailing vessels.
White Sea ..... lasts..	25	77
Baltic Sea ..... do...	67	151
Black Sea ..... do...	44	211
Sea of Azof ..... do ..	39	54
Caspian Sea ..... do...	49	153

As to size of sailers, the Black Sea comes first, the Caspian Sea and the Baltic following; but in steamers the positions are reversed, the Baltic leading, followed by the Caspian and the Black seas, the Caspian occupying the second place both as to steamers and sailing-vessels.

The following table gives the port of registry (of), as well as the number and tonnage of, the vessels registered:

	Sailing-vessels.		Steamers.	
	Ships.	Tonnage.	Ships.	Tonnage.
WHITE SEA.				
Archangel	455	11,810	9	854
Onega	81	2,076	3	71
Lovokski Port	38	893		
Mesen	2	91		
BALTIC SEA.				
St. Petersburg	48	4,233	20	6,011
Cronstadt	1	155		
Narva	23	1,390		
Reval	63	2,371	1	186
Dago	48	1,573		
Arensburg	25	609		
Pernau	34	2,586	3	324
Hainash	83	5,728		
Rigo	210	17,525	32	2,507
Vindau	55	2,638	4	302
Libau	24	2,716	2	48
BLACK SEA.				
Odessa	178	10,475	101	23,332
Nicolaief	476	18,442	7	207
Feodossia	6	125		
Sevastopol	8	395	6	568
Eupatoria	29	1,416		
SEA OF AZOF.				
Kertsch	137	4,374	10	351
Rostoff	688	20,490	15	1,342
Marinpol	79	6,160	1	12
Berdyansk	76	2,541	2	24
Taganrog	278	16,446	15	662
Yeisk	30	759	1	10
Henitschesk	12	153	1	31
Temrynk	3	58		
CASPIAN SEA.				
Astrachan	1,003	49,351	32	5,122
Baku	4	81	3	241

It should be remarked that all the vessels do not belong to the port at which they are registered, and the state of the local merchant fleet cannot be estimated by the number registered at one port.

The owners are largely scattered, and register their ships at the port most frequented. Thus, in the White Sea the number of vessels actually owned in Archangel is but trifling, whereas almost all the vessels in this sea are registered at that port.

This is also the case in the Baltic Sea, particularly at Riga and St. Petersburg, where numbers of vessels are registered whose owners are peasants, dwelling in villages in Livonia and Courland.

Another part of the Livonian fleet is registered at Hainash and Pernau, the former alone having 69 large sailing vessels with a total tonnage of 5,459 lasts, besides 14 smaller ones.

This is exclusively a peasants' fleet, and did not exist prior to the introduction of marine schools into Livonia; 9,000 to 10,000 lasts belonging to these peasants are also registered at various other Baltic ports.

Riga had, in 1854, 50 sailers with a tonnage of 4,740 lasts, and 34

steamers with 304 lasts, and twenty years later this fleet numbered 63 sailers with 7,982 lasts and 34 steamers with 1,734 lasts, among whose owners were many of peasant origin.

In the Black Sea the largest number of ships is registered at Odessa and Nicolaief, whereas Odessa owns steamers only, and Nicolaief but a very small number of vessels. Most of the sailing vessels belong to villages on the Dnieper, and the vessels, in lack of custom-houses at those places, are registered at Odessa and Nicolaief. In a similar manner the vessels of the Sea of Azof are registered at Rostoff, and in the Caspian Sea at Astrachan.

In the register of the merchant fleet whence these figures are taken, and which contains no vessel under 10 lasts, there are no certain data respecting the number of sailors employed in this fleet, but it is estimated that the 4,465 vessels given employ about 25,000 sailors.

In comparison with the merchant fleets of Europe and the United States, the Russian takes a very moderate position, hardly equalling those of Austria and Holland, and barely exceeding those of Finland, Denmark, and Greece.

It is however increasing, the number of vessels registered in European Russia being, in 1880, 14,031, with a total tonnage of 3,151,223 lasts, against, in 1877, 12,214 vessels, with a total tonnage of 1,748,605 lasts, being an increase of 1,817 vessels and 1,402,618 lasts.

The Pacific fleet, numbering, according to the last official reports, 15 steamers of 10,000 lasts total tonnage, is not included in the foregoing figures.

EDGAR STANTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, December 1, 1881.

TRADE AND MANUFACTURES OF GERMANY.

REPORT BY CONSUL FOX, OF BRUNSWICK.

In the natural course of events it must seem probable that the continual business crisis through which Germany has passed for six years will, at some time, come to an end. The end has not yet been reached, however, and to all appearances the future is dark. The report of the "Hanover Handelskammer" says: "The unfavorable situation which we reported a year since has improved but slightly, if at all."

The domestic causes of the business prostration may not, perhaps, be discussed here. It is an indisputable fact, however, that a lasting improvement can only be attained through a heavy export trade. Having this object in view, particular attention has been given to the enlargement of the German consular service, and according to late advices their numbers in Servia, Montenegro, &c., are to be increased.

One report which lies before me refers to the "success obtained by other lands" in this direction, and urges that the example be followed by Germany.

The German success at the Australian expositions is pointed to as a step in the right direction, and favorable results are anticipated. On

April 6, 1881, the German chancellor memorialized the Reichstag relative to granting aid to German shipping by subsidy (see dispatch consul-general, Berlin, July number Commercial Reports). This fact is of singular importance at this time, and the next parliament, to be elected October 27, will doubtless contain a larger quota of commercial men than ever before.

The production in Germany is constantly increasing, in a ratio far greater than her markets expand; any sudden extra call for her productions from abroad immediately causes a bubble in commercial affairs. The best illustration of this is the iron trade in 1879–'80.

IRON.

In my last report I referred to the great improvement in the iron business, caused by the large and sudden demands of the United States, so that the price increased from 40 shillings, English, in July, 1879, to 70 shillings, in June, 1880. In February, 1880, the orders from the United States were fewer, and, finally, there were none at all. The reaction which took place may best be seen by the inclosed table, copied from the report of the Hanover "Handelskammer," which shows the fluctuations from July, 1879, to December, 1880.

Fears are entertained here that since the home production of the United States has so largely increased she will not appear again in the European market as an extensive purchaser. The blast furnaces established since November, 1879, in the United States alone produce as much as the whole of Germany.

The exportation to the United States brought life to the iron industry. A falling off of this trade will result very disagreeably to Germany. The result of the current year is very doubtful. At present Germany has contracts with Spain and Italy for 100,000 tons; with the United States for about the same; whether further orders will be received from the United States is questionable. Russia, owing to increased duties and bad crops, will probably import little.

The demands of Denmark, Sweden, and Norway are but small. In the East European states, Roumania *et al.*, Germany considers the traders, trusting that England's home necessities, together with those of her colonies, will prevent too much competition from that quarter.

BEET SUGAR.

The campaign of 1880–'81 may be called a middle year; although an unusual quantity of beets were harvested the quality was not of the best, and the prices obtained were generally low. The number of factories at work in the German Empire was 333 against 328 in the preceding year. In the Duchy of Brunswick 30, the same number as in preceding campaign. The increase in beet-sugar production in Northeastern Germany is becoming more and more important with each year, not so much because the soil and other circumstances are more favorable than was formerly supposed, but because the production finds a ready market. In certain districts several of the elder establishments have been considerably enlarged in order to decrease the general cost of manufacture, merging several smaller concerns to prevent competition. Under these circumstances larger facilities for manufacturing at less cost were obtained, and the area of land devoted to beet culture was increased 205,800 hectares in 1880–'81 against 190,534 in 1879–'80.

The actual result of the campaign may be summed up as follows, viz:

	Centners.
Production	11,384,463
Import	140,447
Campaign 1879–'80, stock on hand	108 200
Total	11,633,110
Stock on hand end August	76,000
Delivered	11,557,110
Exported	5,896,619
Consumption, 12 months	5,660,491
Population (1,000)	45,194
Consumption per capita, pounds	12.53

Inclosed I beg to transmit an interesting table prepared by Messrs. Ropka, Nagel, and Kessler, sugar brokers in this city, showing the situation in the Duchy of Brunswick. At a late session of the *Verein für Rüben-Zucker Industrie*, held in Cologne, many important facts in regard to the beet-sugar industry were given, and I think that reference to same may not be inappropriate.

The desirability of placing a tax upon this production was first mentioned in a cabinet order of November 28, 1799, but was first introduced in the campaign of 1840–'41, when 3 pfennig per centner was levied. The following table is a resumé of the business for the five decades from 1840–'41 to 1880–'81, showing the number of factories in operation, amount of beets worked, amount of sugar produced, amount of tax paid, and the actual revenue derived by the government:

Campaign.	Number of factories.	Amounts of beets worked.	Amount of sugar manufactured.	Tax per centner.	Revenue after deducting drawback for exportation.
		Centners.	*Centners.*	*Pfennige.*	*Marks.*
1840–'41	145	4,829,784	284,102	3	15,841,119
1850–'51	184	14,724,309	1,066,979	30	15,628,293
1860–'61	247	29,354,032	2,530,520	75	25,799,490
1870–'71	304	61,012,912	5,259,734	80	39,501,081
1880–'81	331	126,415,938	10,600,000	80	50,000,000

Beginning with a merely nominal tax of three-fourths of a cent for hundredweight, the government received 16,000,000 marks revenue.

This tax was steadily increased with each year until 1870, when it was 80 pfennig or twenty-five times as much as in the beginning. Further, commencing with 1850, the amount of beets worked and sugar produced has doubled with each decade, now yielding the government a revenue of 50,000,000 marks annually. The increase during the last decade is especially noticeable, showing a prosperity unequaled in any branch of industry.

It is maintained that the development of the beet-sugar industry is not due to any artificial means, such as large premiums. As a basis for payment of export drawback, it is assumed that 11.75 centners beets are necessary to produce one centner sugar. In the preceding campaigns this calculation has proved to be approximately correct, 11.60 centners being actually required. In the present campaign a much larger quantity was necessary, as the beets were of an inferior quality; the large amount of sugar manufactured and exported shows the beet production to have been enormous. Notwithstanding that the beet-sugar business is a success, and that the factories declare from 10 to 30 per cent. an-

nual dividends, the manufacturers complain. The heavy tax makes the article so dear that the home consumption is exceedingly small, especially so when compared with other nations, and it has shown a marked decrease in the immediate past. For instance, in the campaign of 1877–'78, the home consumption was 13.12 pounds per capita; in the three preceding compains, 13.23, and in this campaign just closed, 12.53 only. Admitting that this decrease is attributed to the general business depression in Germany, the consumption is nevertheless of itself small. England, with 60, the United States, with 40, and Switzerland and France with 25 pounds per capita, present a marked contrast.

On the average, calculating that 11¾ centners beets will yield 1 centner sugar, 1 centner (96 per cent. raw sugar) can be produced for 20 marks; adding tax, the same costs 30 marks or 50 per cent. more. Under these circumstances, manufacturers in the United States will have a signal advantage.

In my several communications on this subject I have pointed to the fact that the beet-sugar industry is fast becoming a thoroughly agricultural undertaking; by this I mean that the peasants and farmers are themselves the owners of the factories; they build the factories, take the residue for fodder, and, what is still better, the dividends. It matters not how many acres of beets are planted, it does not injure, on the contrary improves, the soil for cereals; it is calculated that beet-culture improved German soil during the preceding campaign $5,000,000.

CHICORY.

I beg to inclose a table prepared by Messrs. Dommerich & Co., of Buckau, Magdeburg, giving complete statistics in regard to this industry, whose extent and importance is comparatively unknown.

This is, I believe, the first full and comprehensive statement that has been made in regard to it. The table shows that the total amount of dried chicory produced in the German empire was 1,318,600 centners at an average price of 14.25 marks per 100 kilograms (2 centners) = 7,837,000 mark, to which must be added about 205,000 centners dried chicory roots, at 12 marks per 100 kilograms = 1,230,000 marks; total 9,067,000 marks. Chicory plays an important part in sugar-beet culture, and has proven a very desirable adjunct to it, owing to its property of dispersing the infusoria resulting from the culture of the beet; it is therefore planted after the beets. Many drying kilns have been established by the sugar-manufacturers themselves. The chicory root also contains a quantity of sugar, not such as the cane and beet, but so-called "invert" sugar, used for manufacturing purposes. Mr. Carl P. Bartels, of Magdeburg, has invented a process of converting same, patent for which has been applied for in the United States. Mr. Bartels informs me that there is also a bitter substance in the chicory root, of fine taste, that will eventually prove a competitor to hops in beer-brewing. It has been stated to me that this plant could be advantageously raised in the United States.

TOBACCO.

The situation in this branch is unsatisfactory—no better than as reported a year since—due in part to decrease in consumption, in part to the large supply held by dealers who have anticipated the tax by laying in full stocks for future wants.

The tax of 45 marks per 100 kilograms, established July 10, 1879, does not take effect until 1882. In the present decidedly active political cam-

paign the tobacco-monopoly scheme is receiving a good deal of attention; the manner in which the various candidates have been interpellated in regard to it proves that it is a very general but unpopular question. In 1879 the tobacco tax was trebled, and now before the additional tax has gone into effect new ones are proposed. It is a foregone conclusion that the project making the raising, manufacturing, and selling of tobacco a government monopoly will be laid before the next Reichstag. The government wishes to adopt this plan for revenue. The opponents say that the new tax of 50,000,000 marks will yield as much actual revenue and not cause such a revolution in business; 700,000,000 marks is calculated will be necessary to pay the indemnity, and then only actual manufacturers will be indemnified. Every saloon-keeper, grocer, and numberless small shopkeepers, stands, &c., sell cigars and tobacco, this trade affording a no inconsiderable extra income. Should the monopoly be adopted, they will of course lose this trade, and it is claimed will suffer a great hardship.

Pending the settlement of these questions, there is absolutely nothing encouraging to report in regard to the tobacco business.

PRESERVED VEGETABLES.

This duchy is remarkable for the fertility of its soil, especially so in the immediate vicinity of this city and Wolfenbüttel, which may be properly called the vegetable garden of Northern Germany. One of the most celebrated products is asparagus, Brunswick asparagus having a wide-spread notoriety. There are at present 1,500 acres of asparagus beds in and around the city, yielding on the average $190 per acre per season; 8 factories are engaged in the preserving and canning of this and other vegetables, and employ 1,000 men, women, and boys in the various departments. The product is mostly sold in Berlin; large quantities are exported to South America, with occasional small shipments to the United States.

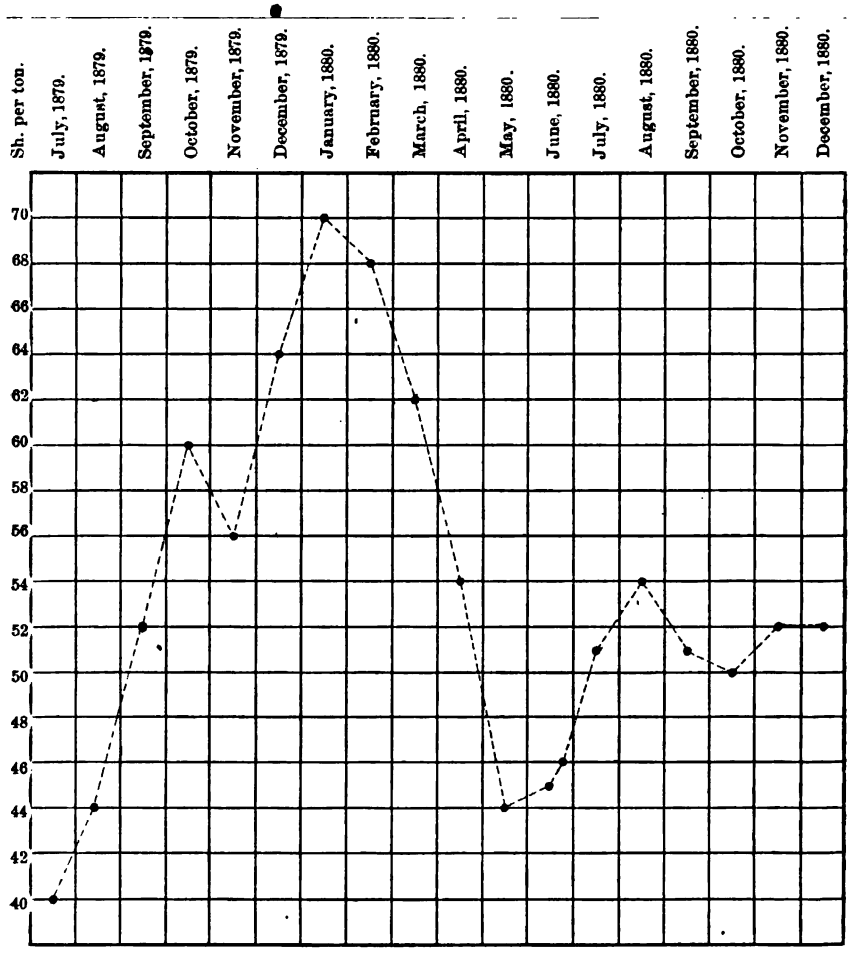
TRADE WITH THE UNITED STATES.

In the exhibition of building material held in this city during the past summer, I am sorry to say there was no direct representative from the United States. A quantity of Yale locks were exhibited by a Berlin agency; they were much admired for their simplicity and elegance. I have been unable to learn whether any sales were effected or not. In these and kindred articles of hardware our trade should be much larger than it is. Numerous answers to my inquiries assure me that notwithstanding the several attacks made upon American canned goods, the consumption is continually increasing. Owing to the fact that there are no merchants here importing direct from the United States, the data which I am able to glean in regard to trade with this point are very meager. I see many articles of American manufacture in the shops, all purchased in Frankfort, Hamburg or Bremen. I do not consider this a place where an American agency could be established with profit, still I repeat my former assertion that if American commercial travelers would visit Brunswick they could do so with success. A knowledge of the German language, if but slight, would of course be of great advantage, though it is not absolutely necessary. I will always render any assistance in my power in interpreting or otherwise.

WILLIAMS C. FOX,
Consul.

UNITED STATES CONSULATE,
Brunswick, Germany, October 25, 1881.

Table showing the fluctuations in the German iron market between July, 1879, and December, 1880.



Statement showing the number and names of the beet-sugar factories in the Duchy of Brunswick, also amount of beets worked and tax paid by each.

No.	Factory.	Place.	Worked. From—	Worked. To—	Amount of beets worked.	Tax paid.
					Marks.	*Marks.*
1	Actienzuckerfabrik	Brunswick	Sept. 22	Jan. 31	62,495.00	99,992.00
2	....do	Immendorf	Sept. 21	Jan. 25	114,510.00	183,216.00
3	....do	Burgdorf	Sept. 28	Feb. 14	159,027.00	254,443.20
4	Zuckerfabrik	Wendessen	Sept. 14	Feb. 14	164,015.00	262,424.00
5	Actienzuckerfabrik	Broitzem	Oct. 5	Dec. 8	84,610.00	135,376.00
6	....do	Vechelde	Sept. 28	Dec. 28	104,750.00	167,600.00
7	....do	Wierthe	Sept. 21	Dec. 23	102,817.50	164,508.00
8	....do....Eichthal	Brunswick	Sept. 21	Feb. 15	150,112.50	240,180.00
9	.... do	Rautheim	Sept. 14	Jan. 12	234,600.00	375,360.00
10	....do	Oelsburg	Sept. 21	Dec. 19	123,615.00	197,784.00
11	....do	Thiede	Sept. 21	Jan. 26	164,025.00	262,440.00
12	....do	Uefingen	Sept. 28	Jan. 10	148,840.00	238,144.00
13	....do	Broistadt	Sept. 28	Jan. 12	221,520.00	354,432.00
14	....do	Barum	Sept. 28	Jan. 13	220,120.00	352,192.00
15	....do	Hedwigsburg	Sept. 15	Jan. 8	197,125.00	315,400.00
16	.... do	Dettum	Oct. 12	Feb. 17	186,025.00	297,640.00
17	....do	Salzdahlum	Sept. 21	Jan. 5	96,497.50	154,396.00
18	....do	Schöppenstadt	Sept. 21	Feb. 13	360,440.00	576,704.00
19	....do....Altenau	Schöppenstadt	Sept. 28	Feb. 3	204,960.00	327,936.00
20	.... do	Watenstadt	Sept. 14	Jan. 18	196,825.00	314,920.00
21	....do	Jerxheim	Sept. 21	Jan. 22	251,375.00	402,200.00
22	....do	Hoiersdorf	Sept. 21	Jan. 29	199,550.00	319,280.00
23	....do	Hessen	Sept. 14	Jan. 22	325,465.00	520,744.00
24	.... do	Mattierzoll	Sept. 14	Jan. 21	266,770.00	426,832.00
25	....do	Söllingen	Sept. 21	Jan. 20	235,140.00	276,224.00
26	....do.... Trendelbusch	Helmstadt	Sept. 21	Feb. 9	282,235.00	451,576.00
27	....do	Königslutter	Sept. 28	Feb. 23	217,360.00	347,776.00
28	Zuckerfabrik, formerly A. Ruhland & Co.	Königslutter	Sept. 28	Feb. 22	267,260.00	427,616.00
29	Actienzuckerfabrik	Gandersheim	Sept. 14	Jan. 11	190,210.00	304,336.00
30	....do	Seesen	Sept. 27	Dec. 4	120,890.00	193,424.00
	Total				5,653,184.50	8,945,095.20

Statement giving statistics in regard to the drying and manufacture of chicory; also, the exportation and importation of the German Empire.

1880.	Province of Saxony.	Baden.	Hesse-Darmstadt, Wiirtemberg, Bavaria.	Silesia.	Brunswick.
Chicory roots, planted....hektar	5,800.23	2,327.13	1,158.46	673.96	529.63
Harvested....centner	2,959,200	692,900	361,000	238,600	257,600
Average crop....do	130.09	75.92	79.46	90.27	124.02
Number of drying kilns	100	6	3	6	11
Amount prepared....centner	815,000	197,000	103,100	62,400	64,700
Average amount of fresh roots used in preparing 1 centner dried chicory....centner	3.58	3.52	3.49	3.76	4.02

1880.	Hanover and Westphalia.	Rhine Province and Rheinpfalz.	Pomerania.	Holstein, Posen, &c.	German Empire.
Chicory roots, planted....hektar	296.05	155.04	128.01	9.69	43,444
Harvested....centner	123,400	97,700	52,400	4,400	4,787,200
Average crop....do	106.28	160.69	104.38	115.70	110
Number of drying kilns	12	7	3	2	150
Amount prepared....centner	34,700	26,000	14,400	1,300	1,318,600
Average amount of fresh roots used in preparing 1 centner dried chicory....centner	3.40	3.69	3,69	3.49	3.63

Statistics in regard to drying and manufacture of chicory, &c.—Continued.

Years.	Dried, burnt, and ground chicory.	
	Import.	Export.
	Centner.	*Centner.*
1872	181, 850	208, 413
1873	273, 168	193, 244
1874	353, 877	293, 119
1875	209, 420	235, 107
1876	277, 282	260, 381
1877	241, 610	320, 537
1878	178, 775	359, 030
1879	144, 790	335, 992

Import of dried chicory	centner..	99, 390
Export of dried chicory	do.....	242, 978
Export increase	do....	143, 588
Import of burnt and ground chicory	centner..	13, 938
Export of burnt and ground chicory	do.....	178, 382
Export increase	do.....	164, 444
1880.—Home consumption of dried chicory	centner..	1, 100, 000
Number of factories in German Empire		123
Number of factories in Europe		451

1 centner = 50 kilograms; 100 centners = 1 hektar.

RICE CULTIVATION IN JAPAN.

REPORT BY CONSUL-GENERAL VAN BUREN, OF KANAGAWA.

There are two general divisions of the rice plant (*Oriza Sativa*), "upland" and "lowland." The great bulk of the rice product is lowland rice, but the upland variety is grown in all Asiatic countries. In some of the richest provinces of China the tax or tribute collected in kind and sent to Peking for the Imperial use, consists, in great part, of upland rice. The lowland variety, in all cases, requires a low, level soil, susceptible of being flooded several times during the season. The labor required for its production is immense. The plot of ground must be embanked, so as to hold the water, and the soil, after being flooded and exposed to the sun, bakes, and is worked with great difficulty.

On the other hand, the upland rice is grown on high, dry ground, and in ordinary climates requiring no irrigation. The dry soil is easily and cheaply prepared for the seed, and needs no expensive system of irrigating ditches and embankments. The plot of ground can be so large as to admit the employment of the plow, and the loose, dry soil is fitted for its use. It is safe to say that the labor in Japan of producing an acre of upland rice is less than one-half that required for the lowland, and it may not be more than one-third. It is grown in all the ken, or districts, of Japan, and flourishes in any soil adapted to wheat or barley. The soil is plowed with the small Chinese plow, drawn by one animal, usually a cow or bull, or it is dug up with a mattock. The seed is sown in April or May, in drills about eighteen or twenty inches apart. In the drills, before the seed is sown, a compost of decomposed straw, closet manure, and ashes is strewn, upon which the seed is dropped, one to one and a quar-

ter bushels per acre. The soil is dug up between the drills three or four times, to keep it loose and to destroy weeds. Two or three times, during the growth of the plant, small quantities of liquid fertilizers are poured on to the ground at its root. The ordinary height of the stalk, when matured, is about that of wheat or barley, but, when the soil is very fertile, or an extra quantity of fertilizers has been used, it will sometimes reach a height of four, and even five feet. It is ready for harvest in September or October, and is cut here with a sickle or knife, and threshed the same as wheat or barley.

The process of hulling is the same as that used for lowland rice.

Any acre of land, which will produce a good crop of wheat or barley, will produce thirty bushels of upland rice.

I have seen many acres yielding, each, 40 bushels or more. The weight of a bushel of this hulled rice is from 60 to 61½ pounds.

The analysis of this rice, as given by Pavy, Edward Smith, and Parkees, is:

Nitrogenous matter	7.55
Starch	88.65
Dextrine	1.00
Fatty matter	0.80
Cellulose	1.10
Mineral matter	0.90
	100.00

By way of comparison I give an analysis, from the same authorities, of *flour*, obtained from 100 pounds of *wheat*, the highest quantity obtainable being eighty pounds:

Water	11.20
Fatty matter	0.96
Nitrogenous matter	11.68
Dextrine and sugar	5.76
Starch	47.76
Cellulose	1.36
Salts	1.28
	80.00

It will be seen by the above that, while the bushel of wheat yields a somewhat larger amount of nitrogenous matter, dextrine and sugar, it contains less than fifty-three per cent. of the starch that a bushel of hulled upland rice does. This plant seems to flourish as well in the northern districts of this main island as it does in the middle and southern portions.

The mean annual temperature of the northern districts of this main island averages as it does in the middle and southern portions.

The mean annual temperature of the northern districts is 48.33° Fahrenheit; the extreme maximum, 88°; extreme minimum, 2°; rainfall, 51 inches.

I have been led to give the above facts with a view of recommending the introduction of the culture of upland rice in America. It could be grown on all the wheat soils of the great northwest, and also on the rolling uplands of the south. It can be sown broadcast, cut by an ordinary harvester, and threshed by any threshing machine. It is probable that our field tillage would not give such high yields as the thorough gardening of the Japanese, but our unmanured prairie soils are more fertile than those of Japan, even with all their fertilizers, and I believe that it would be safe to anticipate a yield of twenty bushels per acre. Even at the same yield, upland rice will furnish more than one and one-half times the nutriment for human food than an acre of wheat will,

and its cash value will be three times that of wheat. The rice straw is fully as good for forage as that of wheat or oats.

I can see no reason, from the soil and climate, why this most valuable food-plant should not be produced with us, and I believe its introduction would be of great benefit to our agricultural interest.

I forward herewith three samples of the upland rice, in the straw, furnished me at Gifu, in the center of Nippon, measuring, as will be seen, from four to six feet; also, a sample of the hulled rice, in order that it may be compared with the rice produced in our Southern States; and a bushel of the unhulled seed, with which experiments may be made of growing it in our country. (These samples has been sent to the Department of Agriculture.)

THOS. B. VAN BUREN,
Consul-General.

UNITED STATES CONSULATE GENERAL,
Kanagawa, Japan, December 7, 1881.

COMMERCE AND PRODUCTS OF AUSTRALASIA.

REPORT BY CONSUL-GENERAL SPENCER, OF MELBOURNE.

In submitting this commercial report I have to inform the department that its transmission has been delayed by circumstances beyond my control, as I have not been able until quite recently to obtain the official returns of the several Australasian colonies, although Mr. Hayter, the government statistician, has placed me under renewed obligations by furnishing this office with advanced sheets of the Victorian Year Book for 1880.

I.—AGRICULTURE.

Hitherto the pastoral and mining industries have furnished the staple exports of Australasia, but of late years agricultural products appear to be coming rapidly to the front. In New Zealand the exports of agricultural produce increased from $1,279,549 in 1875 to $3,716,230 in 1879. In Victoria the area under tillage has more than doubled during the past ten years. This colony in 1879 exported 321,809 centals of wheat and in 1880 1,472,123 centals. In South Australia the export of breadstuffs, which deservedly rank among the finest in the world, approximates in value to $10,000,000 annually. The following table will show the produce of the various crops for the several colonies for 1880–'81.

PRODUCE OF CROPS.

Name of Colony.	Bushels raised of—					Tons raised of—		Gallons of wine made.
	Wheat.	Oats.	Barley.	Maize.	Other cereals.	Potatoes.	Hay.	
Victoria	9,719,049	2,358,459	1,063,751	49,299	415,900	124,706	300,184	484,028
New South Wales	3,708,737	356,121	160,602	4,483,457	22,200	51,936	173,074	584,282
Queensland	223,243	2,081	31,433	1,409,607	.....	16,177	23,440	85,455
South Australia	8,606,510	50,070	151,886	.....	58,963	16,170	261,371	500,955
Western Australia[2]	413,644	25,080	114,552	448	11,543	1,649	24,454	.....
Total	22,671,183	2,791,811	1,522,224	5,942,811	508,696	210,638	782,523	1,654,720
Tasmania	750,040	439,446	169,156	.....	106,396	32,548	35,883	.....
New Zealand	8,147,705	6,891,251	1,221,241	.....	.....	111,329	68,710	.....
Grand total	31,568,928	10,122,508	82,912,621	5,942,811	615,092	354,515	887,116	1,654,7[illegible]

PRODUCE OF CROPS—Continued.

Name of colony.	Bushels per acre of—					Tons per acre of—	
	Wheat.	Oats.	Barley.	Maize.	Other cereals.	Potatoes.	Hay.
Victoria	9.95	17.61	15.53	27.87	16.73	2.79	1.20
New South Wales	14.69	19.87	20.35	35.67	16.33	2.79	1.33
Queensland	20.40	17.94	20.07	31.96	.....	2.65	1.95
South Australia	4.96	11.50	11.62	.....	13.38	2.89	.96
Western Australia	14.94	19.00	18.00	14.00	13 36	3.50	1.25
Total	7.55	17.71	15.64	34.63	15.99	2.77	1.14
Tasmania	14.99	22.13	20.39	.....	16.54	3.12	1.13
New Zealand	25.07	32.05	26.05	.....	.....	4.94	1.27
Grand total	9.35	25.79	19.10	.....	16.09	3.26	1.15

Among the agricultural products of Queensland, sugar, which is not enumerated in the foregoing table, takes the first rank. In 1879 there were 16,584 acres of sugar-cane under cultivation in the colony, with an estimated yield of 16,000 tons of sugar.

LIVE STOCK.

The following table furnishes the number and description of the live stock in the Australasian colonies for 1880–'81, as appears from the last census:

Name of colony.	Number of—					Total number of stock of all descriptions to the square mile.
	Horses.	Cattle.	Sheep.	Pigs.	Total.	
Victoria	275,446	1,285,613	10,355,282	241,836	12,158,177	138.34
New South Wales	395,984	2,580,040	32,399,547	308,205	35,683,776	115.42
Queensland	179,152	3,162,752	6,935,967	66,248	10,344,119	15.49
South Australia	157,915	307,177	6,463,897	131,011	7,060,000	7.81
Western Australia	34,568	63,719	1,231,717	24,232	1,354,236	1.39
Total	1,043,065	7,399,301	57,386,410	771,532	66,600,308	22.62
Tasmania	25,267	127,187	1,783,611	48,029	1,984,094	75.23
New Zealand	137,768	578,430	13,069,338	207,337	13,992,873	132.83
Grand total	1,206,100	8,104,918	72,239,350	1,026,898	82,577,275	26.85

The above figures sufficiently indicate the enormous pastoral wealth of Australia, whilst its capabilities for the multiplication of live stock is practically without limit. Such is the mildness of the climate and the adaptation of the country for grazing purposes, that no provision is necessary for food and shelter during the winter season other than that provided by the bounty of nature. It is believed that Queensland alone "could easily 'run' from thirty to forty million head of cattle without cultivating an acre of ground for fodder, or spending a sixpence in the improvement of the natural pasturage."* In Western Australia horses

*A glance at Australia in 1880.

and cattle, sheep and hogs multiply so rapidly, if permitted to run wild, that it has been found necessary to regulate their destruction by a special act of the legislature. As it is, the actual increase of cattle in Victoria, New South Wales, and Queensland, from 1873 to 1878, over and above consumption, and consequently available for export, was 1,452,763, and this number could be indefinitely increased if a profitable outlet could be found for the surplus fat stock.

Reference has already been made, in a previous report, to the superior quality of the Australian merino. At a recent sale of merino sheep bred by the Hon. T. F. Cumming, at his Stony Point estate near Camperdown, Victoria, some of the ewes sold as high as 80 guineas, whilst a four-year old ram, Nugget III, realized the extraordinary price of 1,400 guineas, or $7,154.

II.—MANUFACTURES.

To the political economist an interesting experiment is now on trial in the neighboring colonies of Victoria and New South Wales. Peopled by the same race, with similar commercial advantages, and the same political institutions, in adopting a fiscal policy, the former has pronounced in favor of protection, and the latter in favor of free trade. The time has not yet come, perhaps, to predict the final issue, but the vexed question seems now to be in a fair way of being settled by the inexorable logic of facts. We would not confound the *post hoc* with the *propter hoc*, but since the adoption by Victoria of her present fiscal policy, while New South Wales appears to keep place with her in the healthy development of her manufactures, she has been rapidly overtaking her in the race for the premier commercial position among the Australasian colonies. Whatever may be the cause, it appears from a comparison of the statistical returns of Victoria for the years 1878, 1879, and 1880, that whilst the average home consumption per 100 of the mean population has diminished, there has been a gradual decrease in the exports of the leading Victorian manufactures.

EXPORTS OF VICTORIAN MANUFACTURES.

Exports.	1878.	1879.	1880.
Agricultural implements and machinery	£22,280	£17,805	£17,179
Machinery, other	53,467	39,981	46,292
Steam-engines and boilers	4,215	3,762	4,579
Iron castings	3,106	2,928	3,374
Manufactures of metals, hardware, and ironmongery	20,085	23,555	22,842
Carriages, carts, and wagons	9,828	7,607	6,119
Dynamite and lithofracteur	18,570	11,774	8,846
Corn-sacks, wool-packs, &c	9,454	4,698	3,287
Cordage	17,176	14,549	14,440
Jewelry	3,644	3,856	509
Woodenware	6,612	9,643	9,650
Furniture and upholstery	45,567	28,604	29,015
Woolen piece goods	23,784	17,851	12,213
Stationery, and paper bags	25,640	26,910	25,111
Paper, wrapping	2,914	2,546	3,570
Saddlery and harness	14,554	14,244	14,649
Hats, felt	756	1,377	1,700
Brushware and brooms	2,815	3,351	3,805
Biscuits	29,990	26,779	27,656
Confectionery	17,176	14,549	14,440
Jams and preserves	6,005	9,023	12,513
Oilmen's stores	7,810	11,577	9,676
Candles	3,941	686	1,090
Soap	14,882	10,564	11,661
Boots and shoes	43,286	48,906	54,131
Apparel and slops	203,769	188,113	178,308
	611,326	545,240	536,646

Since my last annual report, in which I gave an account of the number, character, and condition of the various manufactures in the several colonies, there has been no material change or noteworthy advance.

III.—MINES.

The first discovery of gold in New South Wales and Victoria dates from the year 1851. Since then it has been found in South Australia, Queensland, Western Australia, Tasmania, and New Zealand. There is every reason to believe that it exists also in New Guinea; the whole of these countries, as also New Caledonia, having—in the opinion of eminent geologists—formed part of a great southern continent, their respective areas "representing the summits of the boundary ridges of a vast synclinal depression, filled in now by the Pacific, in which occasional soundings between the opposite coasts are found to exist." As regards the former junction of New Guinea with the northern part of the Australian continent, conclusive testimony is afforded by Mr. A. Wallan in his "Malay Archipelago."

At present the total area of auriferous territory in Australia can only be roughly conjectured, as so large a portion of its surface still remains unexplored. In Victoria, the smallest colony of the group upon the mainland, that area is estimated at 28,000 square miles, of which about 1,200 square miles are being worked upon. In New South Wales the gold-bearing area is computed to be 13,650 square miles, but new discoveries are being constantly made in districts not previously known or suspected to be auriferous, so that this estimate is probably very far below the mark. Of the extent of auriferous ground in the other colonies, it is impossible to speak with anything like even approximate accuracy. With respect to Queensland, for example, it has been ascertained that the vast gold fields known as the Palmer, the Hodgkinson, and the Etheridge comprehend an area of 14,600 square miles; but in addition, as we learn from official documents, "there are literally thousands of square miles of gold-bearing country in which no discovery of a sufficiently startling nature has been made to attract a rush of mines, and which have not, therefore, been formally proclaimed."

The geological conditions under which gold has been deposited in Australia have been thus defined by a gentleman who was for some time secretary of mines for the colony of Victoria, and is now conducting operations of a gold-mining company in India:

> The quartz veins were formed prior to the Mesozoic epoch. Gold was deposited in the greater number of veins contemporaneously with the quartz; but all the veins were not formed at the same time, nor in the same way. Gold is found in all drifts and strata which have been derived from the Paleozoic rocks; and plentifully so in modern drifts, because the rocks forming the drifts have not generally been much moved, while it is deposited every day in all rocks, of whatever age, which are below what is called the water-line.

In the drift or alluvial deposits the precious metal has been found in greater masses than in any other part of the world; as something like a hundred "nuggets" have been found in the colony of Victoria alone, averaging 370 ounces each, some of them weighing upwards of 3,000 each. The following list of the largest of these nuggets, and of their value, may prove of interest:

The Welcome Stranger, found near Dunolly, realized	£9,534
The Welcome, found near Ballarat, realized	9,325
The Blanche Barkly, found near Kingower, realized	6,905
Nugget, unnamed, found near Canadian Gully, realized	5,532
The Heron, found near Fryer's Creek, realized	4,080
Lady Hotham, found near Canadian Gully, realized	3,000

Most of these were found within a few feet of the surface.

In quartz reefs, however, gold is rarely found in particles exceeding one ounce in weight; but it is widely distributed, and the depth to which the auriferous veins extend is now ascertained to be at least 2,000 feet.

Excepting that hydraulic mining is seldom resorted to, the methods and processes employed in Australia resemble those in use in California, from which State many valuable hints and inventions have been derived. The quantity and value of the gold raised in the whole of the colonies from 1851 to 1879 inclusive, were as follows:

	Ounces.	Value.
Victoria	48, 058, 649	$935, 509, 661
New South Wales	8, 811, 346	158, 727, 589
Queensland	2, 901, 092	52, 207, 369
South Australia	57, 103	1, 106, 725
Tasmania	71, 000	1, 365, 589
New Zealand	8, 959, 482	170, 353, 161
Total	68, 858, 672	1, 319, 270, 094

The average yield of gold from quartz in Victoria ranges from five pennyweights and a fraction to one ounce and four pennyweights. It is lowest in those districts where—as for example, at Ballarat, Sandhurst and Castlemaine—the largest quantities are crushed, and highest in those parts of the country where quartz-reefing is carried on upon a smaller scale, and where none but the best stone is treated.

For many years past there has been a steady decline in the number of persons engaged in mining upon the Victorian gold fields. In the year 1868 there were as many as 64,658 thus occupied; but in 1878 this number had dwindled down to 36,636. Of these about 9,000 were Chinamen. The average earnings of the alluvial miner in the year 1879, were $236.05 per annum; and of the quartz miner, $576.33. This latter figure is arrived at by dividing the gross yield of the reefs among the number of persons at work upon them; but it is scarcely necessary to remark that this amount is also chargeable with the interest on the capital invested in machinery, and sunk in performing "dead work," before the reef is thoroughly developed, and likewise with the expenses of management. When the fact is taken into consideration that skilled artisans earn ten shillings for eight hours work, per diem, in Victoria, it will be seen that gold mining is less remunerative than perhaps any other form of manual labor in this colony; and as the period of large finds seems to have passed away, and there are no longer any of these strokes of good fortune, which used to lift men out of penury into affluence in a single day, the decline of the industry is not to be wondered at. It reached its highest point of development in 1853, two years after the date of the first discovery of gold, when the yield was estimated at 3,150,021 ounces of the value of $58,398,000; though there is every reason to believe that the gross product was 3,500,000 ounces, as large quantities were taken out of the colony of which no record was obtained at the custom-house. After that date the yield gradually diminished, with a few fluctuations, until 1879, when the total was no more than 758,947 ounces.

Silver is met with in many parts of New South Wales and Victoria, and companies have been formed for working the mines in which it is found. Although it was obtained in considerable quantities from what appeared to be the leads of a rich argentiferous reef at St. Arnaud's in the latter colony, and although an excellent return in analysis was obtained from ore extracted at Bronlee, in the former colony, yet in both

instances, operations having been conducted by men with a very imperfect knowledge of silver mining, the result has been that a considerable amount of capital was sunk without any return whatever, and the want of success has deterred others from repeating it in other localities where the prospects seemed promising.

In the year 1879 no more than 48 ounces of silver were parted from gold obtained in the district of St. Arnaud, Victoria; and 23,680 ounces were separated from gold smelted in the Melbourne mint.

The value of the machinery and other appliances in use on the Victorian gold fields is, in round numbers, 2,000,000 sterling, or $10,000,000; and during the last six years 652 mining companies have been registered with a nominal capital of 7,000,000 sterling. Timber of the value of a quarter of a million sterling is annually consumed for mining purposes; and the extensive destruction of the indigenous forests which is thus occasioned is already exciting alarm on account of the effect it will necessarily have in diminishing the annual rainfall and unfavorably affecting the climate.

From the official report just issued from the mining department of Victoria it appears that the amount of gold raised from alluvial deposits and reefs during the year 1880 was as follows:

	Ounces.
Alluvial	299,926
Quartz	529,195
Total	829,121

This shows an increase of 70,174 ounces over the yield for 1879, attributable to the discovery and opening up of new gold fields, operations which have been greatly facilitated by the use of the diamond drill. The principal increase has been obtained from the quartz mines, the quantity of quartz raised during 1880 being estimated at 968,883 tons as compared with 849,324 tons for 1879. The number of miners employed in 1880 was 38,568, of which 22,916 were alluvial miners, and 15,652 quartz miners.

According to this report no silver ore has been raised during the past year, but 23,248 ounces of silver have been separated from gold, smelted for the most part at the Melbourne mint.

The total value of the product of the various mines in Victoria up to the end of 1880 is estimated as follows: Gold, £198,000,014, or the enormous sum of $963,567,068; silver, £43,629; tin, £347,704; copper, £90,821; antimony, £159,060; lead, £4,892; iron, £3,936; coal, £13,508; lignite, £2,772; kaolin, £7,444, and of flagging, £51,018.

The estimated value of the minerals raised in New South Wales prior to the 1st of January, 1880, is as follows: Gold, £33,335,800; silver, £143,501; coal, £11,036,722; shale, £495,574; tin, £3,144,237; copper, £2,494,437; iron, £54,151; antimony, £10.178, and lead, £2,510.

The total value of the gold exported from New Zealand up to the end of December, 1879, was £36,110,490; and of silver, £90,457, whilst the annual output of the coal mines, in one of which the seam is 55 feet in thickness is 162,218 tons.

Not to speak of their other mineral resources, South Australia abounds in copper, and Tasmania in tin. Of the latter, one mine alone yielded in 1878 not less than 2,160 tons of tin, probably the largest quantity ever produced by any one mine during the same period, whilst tne quotations of the Burra Burra and Wallaroo copper mines are as well known in London as they are in Adelaide. Western Australia and Queensland, also, abound in mineral wealth which is still, however, in the early stages of its development.

IV. FISHERIES.

The fisheries of the colonies are chiefly confined to the coasts of Queensland and Western Australia. The right and sperm whale, as well as seals, are still to be found, but not in great numbers. All the bays and inlets swarm with excellent fish, beche-de-mer abounds, crayfish are plentiful, and well-flavored oysters are found in many places along the coast. But the pearl and pearl-shell fisheries, which extend from Shark's Bay northward, are considered the most valuable, as they are the most remunerative. A large number of ships and boats are engaged in this and the beche-de-mer trade, while the value of the shells exported in 1879 amounted to $191,740.

The dugong, an herbivorous cetacean not unlike the *Manatus*, or sea-cow, abounds all along the coast, though the fishery has never been prosecuted to any considerable extent. Its fat yields an oil which in medicinal properties is quite equal to, and less nauseous than, cod-liver oil. Its tusks are of ivory, its skin when tanned makes exceedingly thick and durable leather, whilst its flesh, which is not unlike beef in flavor, is both palatable and nutritious. It was with the skin of the dugong, according to Rüppell, that the Jews were directed to veil the tabernacle, and it divides the honor with other marine animals of having given rise to the poetical conception of the fabulous mermaid.

V.—FORESTS.

With regard to the forests of Australia, I can add little or nothing to what has already been said in previous reports from this consulate. By a reference to the official statistics for 1879, the latest at hand embracing all the colonies, it appears that the value of the exports of lumber, during the year, amounted to $1,419,466, or, exclusive of the intercolonial trade, to $302,262. Of this amount the larger proportion was exported from Western Australia and Queensland, whose forests are deemed highly valuable both on account of their extent and the variety and superiority of their products.

VI.—COMMERCE.

As will be seen from the following statement, the total imports for Australasia amounted in 1880 to $219,287,726, and the total exports to $237,807,207, showing, as compared with 1879, a decrease in the imports of $11,281,122, and an increase in the exports of $36,933,382; or an increase in the total volume of trade of $25,652,260.

IMPORTS AND EXPORTS, 1880.

Name of Colony.	Total value of—		
	Imports.	Exports.	Both.
Victoria	£14, 556, 894	£15, 954, 559	£30, 511, 453
New South Wales	13, 950, 075	15, 525, 138	29, 475, 213
Queensland	3, 087, 296	3, 448, 160	6, 535, 456
South Australia	5, 581, 497	5, 574, 505	11, 156, 002
Western Australia	353, 669	499, 183	852, 852
Total	37, 529, 31	41, 001, 545	78, 530, 976
Tasmania	1, 369, 223	1, 511, 931	2, 881, 154
New Zealand	6, 162, 011	6, 352, 692	12, 514, 703
Grand total	45, 060, 665	48, 866, 168	93, 912, 833
	$219, 287, 726	$237, 807, 207	$457, 094, 933

In this increased volume of trade all the colonies have participated except New Zealand and Western Australia which show a decrease, amounting in the case of the former to $7,801,039. Victoria shows a decrease in her imports of $2,329,321, and an increase in her exports of $17,034,643.

TRADE WITH THE UNITED STATES.

During the past year there has been a falling off in the direct trade between Victoria and the United States, as will appear from the following figures:

	Imports.	Exports.
1879	$2,375,582	$1,619,477
1880	1,765,469	429,912
Decrease	610,113	1,189,565

The decline in our trade with Victoria, which is most perceptible in tobacco and petroleum, is both real and apparent. So far as it is real, it may be accounted for partly by the increase of the duties prescribed by the Victorian tariff, as in the case of carriages and buggies, for example, and partly by the increased production of the article in Victoria, stimulated in good part by the higher rate of duties, as in the case of tobacco. So far as it is apparent, it is to be attributed to the decentralization of the trade of Melbourne, which is less an entrepôt than formerly for certain kinds of merchandise. This is especially true of kerosene, which has decreased from 2,063,882 gallons, valued at $723,858 in 1874, to 1,251,264 gallons valued at $350,257 in 1880. I regret that I have not the statistics of the other colonies for 1880 at hand to enable me to present the facts in the case, but it is believed by those best qualified to judge, that the import of petroleum into Australasia is rather on the increase than decrease, notwithstanding the large number of towns that are being, from time to time, provided with gas. In 1878, the value of the tobacco imported into Victoria from the United States amounted to $635,643, and in 1880, $395,262. In 1877 the total imports of the same into Victoria amounted in value to $1,869,802, and in 1880, to only $760,692, showing a decrease in three years of $1,109,110, which is to be attributed, for the most part, to the increased growth of tobacco in this colony.

It is gratifying to state in this connection that I am credibly informed by American merchants that there has been a decided improvement in our trade with Victoria during the current year, although I have not been able to obtain any reliable returns in confirmation of the statement.

But although our trade with the colony is comparatively small, we sell her, on an average, 600 per cent. more than we buy. During the years 1870, 1875 and 1880, the total value of our imports from Victoria amounted to only $917,691, while our exports to the colony for the same periods amounted to $5,323,555.

When it is considered that all commerce must sooner or later resolve itself into a mutual interchange of commodities, it is rather a cause for surprise that our trade with Victoria is as large as it is. American goods rank deservedly high in the market, but it is a question of freights, insurance, exchange, regular and frequent steam communication, and, most of all, unfriendly tariffs, and these are against us. The country is

thoroughly canvassed by commercial travelers representing American houses, but they must contend against wind and tide. We have here active, enterprising American merchants, who, while they push old enterprises, are always on the *qui vive* for some new commercial venture. They would win in the race, were they not so heavily handicapped. Whatever arguments may be adduced in favor of high protective duties, it will hardly be contended that they encourage trade and facilitate mutual interchange. It may be desirable, or even necessary, to protect native industries in their infancy, but when these become well established, and a nation enters the foreign market with its manufactured products as a competitor for its legitimate share of the world's commerce, it must sooner or later, if successful, adopt the principle of free interchange, or commercial reciprocity. Barriers erected by legislative enactment against imports must sooner or later operate aginst exports. This is especially true of the trade of two countries, both of which have adopted a protective policy, so that for all purposes of an extensive commerce, America and Victoria are separated by an almost impassable barrier.

The same remarks apply in a qualified sense to Australasia. In 1879 the value of our direct imports from all the colonies amounted only to $2,146,905, whilst that of our exports amounted to $7,955,234, a difference in our favor of nearly 400 per cent.

With a view to the promotion of our trade with Australasia the attention of the Department has frequently been called by our consular officers to the expediency of reducing the almost prohibitory duties imposed by our present tariff on wool, the staple production of the colonies. As the result of voluminous correspondence between the chambers of commerce of Australia and New Zealand and those of our leading cities, Congress has been memorialized upon the subject, and a bill was introduced into the House of Representatives containing a sensible reduction in the duties on wool, which, however, failed to become a law. It is unnecessary for me to reiterate what has been so often and well said in this connection, but in view of the impolicy of levying a heavy import duty on raw materials it is to be hoped that Congress during its present session may take favorable action upon the subject, as otherwise I do not see how our trade with Australasia can be materially or permanently increased.

WOOL.

I am indebted to Messrs. Goldsbrough & Co., leading wool brokers of this city, for the following review of the Australasian wool trade for 1880–'81:

A large increase in the shipments of wool from these colonies has been anticipated, but this is not likely to be verified. It is true that up to the present date, as compared with the corresponding date of last year, an increase is apparent of 25,112 bales from Victoria, 17,546 bales from New South Wales, and 18,432 bales from south Australia, but this is attributable to the earlier shipment of the clip rather than to its natural increase, and when the total numbers for the year are made up on the 30th September next, we venture to state that a lesser augmentation will be apparent. Several causes will account for this; first, the drought in the southwestern portions of Riverina and the northwestern district of Victoria, and the light yield per fleece on many of the stations. The New South Wales clip is considered to be one of the lightest per fleece shown for many years, nor are the clips from that colony shipped from Sydney, as a rule, quite so well grown or such top-making wools as usual. The proportion in the grease, too, has been greater than in previous years, no doubt chiefly in anticipation of the American demand. Our advices from South Australia are to the effect that the quality of this last clip is generally very good, and better than that of the previous season. There is no material difference in that from Queensland, nor, so far as we can learn, in the yield in Western Australia, Tasmania, or New Zealand.

Owing to the facilities now available through the extension of the railways, the clip reaches the seaboard at an earlier date, and hence a considerable increase is at present nominally apparent, but this will no doubt be lessened when the totals for the year are made up on the 30th of September next. The shipments for the year ending September 30, 1880, were as follows: From Victoria, 301,401 bales; New South Wales, 199,432 bales; Queensland, 30,373 bales; South Australia, 123,403 bales; Western Australia, 9,293 bales. Total from Australia, 663,902 bales. Add the annual returns from Tasmania (23,535 bales), also New Zealand (189,486 bales), and we have a grand total of 876,923 bales exported from Australasia.

The American demand has not been such a prominent feature this year as it was last, owing to the depression of the woolen interest in the United States. Several buyers were here with large orders, but the limits given them were too low to admit of free operations in this market, the total shipped being only 3,372 bales from Melbourne, and 759 bales from Sydney, or 4,131 bales altogether, as against 21,000 bales last season. With a revival of trade much larger operations will, no doubt, be instituted and we look forward to a great future in our wool relations with the United States, as important advantages can be gained by operating here and shipping direct.

The French and German buyers, though present in larger numbers than usual, have been guarded in their purchases, and a good selection of our clips have gone to the continent. The commencement of direct steam communication with the chief ports, which is now about to be inaugurated, coupled with the opening of a branch of an important French bank (The Comptoir d'Escompte de Paris) in Melbourne, will give an additional stimulus to these shipments to the mills, *via* Venice, Naples, Genoa, Havre, and Antwerp, and we may expect a considerable increase in the purchases for France and Germany, also Italy, in the next and future seasons.

Melbourne continues to maintain its well-won supremacy as the great central depot for the Australian wool sales, which is evidenced by the fact that this season 165,302 bales have been catalogued, and 122,272 bales sold in the local markets here and in Geelong. It also effectually holds, and is improving, its position as the chief port of departure for wool, the shipments from October 1 to this date being 285,410 bales, as against 260,303 bales at the corresponding period of last year, thus showing an increase of 25,107 bales. This compares favorably with the increase from the other colonies, and the continued extension of the railways and cheap communication by steamers will steadily add to its importance. The consignments of wool to this market from Sydney, Queensland, Adelaide, Tasmania, and New Zealand are increasing, and a large number of important clips have this season been sent here for sale. Melbourne is, in fact, the natural outlet for the finest pastoral districts of Australia, and the presence of these splendid flocks must always make this market attractive to the buyers. Here they have a grand selection of wool, embracing every variety of the staple, and warehouses and facilities for disposal probably unequalled in any other part of the world.

FROZEN MEAT TRADE.

The export trade in frozen meat may still be said to be in its experimental stage. Its promoters, though they have encountered many unforseen difficulties, are sanguine of ultimate success. Several companies have been formed in Melbourne, Sydney, and elsewhere with ample capital to prosecute the enterprise, if possible, to a successful issue, while a number of first-class steamers have been fitted up with the most approved freezing apparatus, and refrigerating chambers with a carrying capacity of hundreds of tons. So far as it relates to the delivery of the meat in London in a sound and marketable condition, the experiment may be pronounced as fairly successful. But the question as to whether it will pay still remains to be settled. Several cargoes have arrived at an inopportune time, when the meat market was glutted, and as they had to be discharged without delay, and no provision was made for cold storage accommodation, the meat had to be sold at a sacrifice, the mutton realizing, in some instances, only from 3*d.* to 4*d.* per pound. It is believed, however, that this difficulty may be overcome by making suitable provisions for storage accommodation, enabling the consignees to hold over, if necessary, and dispose of their consignments as opportunity offers. There still remains the question of freight. The charges hitherto paid have ranged from 2½*d.* to 2¾*d.* per pound. It is thought, however, that these may be reduced to about 1½*d.* per pound, and after making due allowance for other charges and the cost of production, any meat sold at a higher figure than 4½*d.* per pound would leave a margin for profit.

Some experiments, which are now being made in this city with the meat-preserving fluid of Professor Wickersheiner, of Berlin, may still further simplify the process of meat exportation. This method consists in simply sprinkling the meat with an antiseptic fluid of which the professor claims the invention. It is understood that experimental shipments between South America and Germany have proved highly successful, and should the consignments which are now being shipped from this port to Berlin meet with similar success, the experiment may be attended with important results for the Australian export trade.

SHIPMENTS OF GOLD TO THE UNITED STATES.

The recent shipments of gold from Australia to California, which appears at first glance like shipping coals to Newcastle, suggests possibilities, by no means remote, as to the future course of exchange. The Australian Insurance and Banking Record, referring to the subject, aptly remarks:

The recent shipments of gold from Australia to San Francisco, amounting to £413,000 for the past quarter, show a departure from the usual channels of dispersion of the precious metal, and the subject is attracting some attention both in England and the colonies. To the former it is not without considerable significance as an indication of an important check at the chief source whence it obtains its supplies of bullion, and any curtailment of the stream to the London mint has the same effect on the value of money as an increased foreign demand for gold, unless some compensating movement in another direction should adjust the balance. * * * To these colonies, however, this change in the direction of our gold remittances is only of interest so far as it illustrates the familiar principle of commerce, that all commodities tend to find their way to the point of consumption by the most direct route. * * * Bankers are not slow to discover the route that is the most remunerative or least expensive to them, and we may rest assured that they would not patronize the American route, unless they found that bullion could be profitably converted in the United States into London exchange. * * * For many years back the purchase of bills on London in New York could only be effected at a premium, and a shipper of Australian gold to America would find himself out of pocket by the attempt to make it available in England by that process. Now, however, the conditions are reversed. The extraordinary importation of American wheat and cotton during the last two years into England has revolutionized the monetary relations, and British exchange is obtainable at a discount. Hence the shipments of gold from Australia to America.

COMPARATIVE STATEMENT OF IMPORTS AND EXPORTS OF GOLD, MELBOURNE, 1880–'81.

The following statement covers the period from January 1 to November 12, and compares with the corresponding period of 1880:

	Gold bullion.		Gold specie.	
	Imports.	Exports.	Imports.	Exports.
1881	£736, 505	£1, 437, 645	£20	£2, 838, 249
1880	769, 184	715, 724	10, 015	2, 515, 924
Decrease 1881	32, 679		9, 995	
Increase 1881		721, 921		322, 325

	Imports.	Exports.
Totals 1881	£736, 525	£4, 275, 894
Totals 1880	779, 199	3, 231, 648
Decrease 1881	42, 674	
Increase 1881		1, 044, 246

The destination and value of the gold coin exported from Victoria in 1880 were as follows:

Exports of gold coin, 1880.

United Kingdom	£1,783,245
Ceylon	*1,092,365
New South Wales	25,000
New Zealand	58,000
South Australia	290,000
Tasmania	171,000
Total	2,919,610

NAVIGATION.

The following table shows the number of vessels, and their tonnage, that have entered and cleared at the several Australasian ports during the year 1880:

Name of colony.	Inwards.		Outwards.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Victoria	2,076	1,078,885	2,115	1,101,014	4,191	2,179,899
New South Wales	2,108	1,242,458	2,043	1,190,321	4,151	2,432,779
Queensland	1,225	633,673	1,221	621,903	2,446	1,255,576
South Australia	1,045	590,085	1,111	610,819	2,156	1,200,904
Western Australia	165	123,985	168	126,444	333	250,429
Total	6,619	3,669,086	6,658	3,650,501	13,277	7,319,587
Tasmania	654	205,217	655	208,086	1,309	413,303
New Zealand	730	395,675	786	424,041	1,516	819,716
Grand total	8,003	4,269,978	8,099	4,282,628	16,102	8,552,606

As an indication of the revival of trade at this port, it may be observed that the customs officers report that a larger number of ships are now in Hobson's Bay than have ever been present at any previous time in this harbor. The increase in the tonnage entered during the past year has been 116,319 tons.

It is understood that the French chambers have ratified the action of the French Government in establishing and subsidizing a monthly mail steamship service between Marseilles and New Caledonia, calling at Albany, Adelaide, Melbourne, and Sydney. The Précurseur, the *avant-courier* of this line, has already arrived at this port.

Sydney is now the terminus of four great lines of steamers, the Orient Steam Navigation Company and the Peninsula and Oriental Line, constituting in fact a weekly service; the Torres Strait Steamship Line, and the Pacific Mail Steamship Company. The contract of the latter, which provides the only direct steam communication between Australasia and the United States, will expire on the 15th of November, 1883. This line is now receiving a mail subsidy of £40,000 from the Government of New South Wales and £32,500 from that of New Zealand. On the expiration of the contract, the subsidy of New South Wales will probably be withheld, and unless something is done by our own government to supplement the subsidy of New Zealand, it is to be feared that the line will be withdrawn. I do not know that I can add anything to the excellent

* The coin exported to Ceylon is probably, for the most part, intended for England, as exports by the Peninsular and Oriental Company's steamers are entered for Ceylon and there transshipped.

report of Consul Griffin as to the importance of this line to our commercial interests in the south seas, and I certainly agree with him, that "the abandonment of the Pacific Mail Steamship Service would materially injure the trade and commerce between the United States and Australasia."

VII—REVENUES.

The public revenue and expenditure of the several colonies for 1880 were as follows:

Name of colony.	Date on which financial year terminates.	Public revenue.			Public expenditure.
		Raised by taxation.*	Not raised by taxation.	Total.	
Victoria†	June 30	£1,690,923	£2,930,359	£4,621,282	£4,875,029
New South Wales	December 31	1,417,293	3,486,937	4,904,230	5,560,078
Queensland	June 30	600,236	1,012,078	1,612,314	1,573,695
South Australia	December 31	529,450	1,498,513	2,027,963	1,923,605
Western Australia	December 31	101,257	78,793	180,050	294,338
Total		4,339,159	9,006,680	13,345,839	14,236,745
Tasmania	December 31	304,546	135,234	439,780	423,745
New Zealand	December 31	1,535,700	1,747,696	3,283,396	4,019,850
Grand total		6,179,405	10,889,610	17,069,015	18,680,340

* The amounts in this column are made up of customs duties, exclusive of duties on the export of gold, drawbacks, &c., also of excise duties, including licenses imposed for revenue purposes, duties on bank notes, stamps, other than those for fees of office, legacy, succession, and probate duties, property and income taxes, and any other impost, payable to the general government, levied distinctly as a tax, but excluding fees, licenses, and charges for special services rendered.

† According to a return made up in the treasury, but not audited up to the time of this going to press, the figures for Victoria during the year ended 30th June, 1881, were as follows: Revenue raised by taxation, £2,003,704; revenue not so raised, £3,183,307; total revenue, £5,186,011; estimated total expenditure, £5,108,577.

The following statement will show the revenue returns of Victoria for the year ended September 30, 1881, as compared with the corresponding period for 1880:

REVENUE RETURNS.

Heads of revenue.	1880.	1881.
Customs	£1,311,402	£1,547,356
Excise and inland revenue	332,259	556,160
Territorial	801,697	848,347
Public works	1,560,544	1,755,853
Ports and harbors	18,915	21,382
Post and telegraph	254,368	279,128
Fees	103,234	112,166
Fines	3,973	5,325
Miscellaneous	126,629	178,915
Total revenue	4,513,021	5,304,632
		4,513,021
Net increase on the year		791,611

PUBLIC DEBT.

The public debt of the Australasian colonies, as will be seen from the accompanying statement, aggregated on the 31st of December, 1880, £89,910,249, or $437,548,227, the average indebtedness being over $160 per head of the entire population, whilst that of Queensland and New Zealand is exceptionally high, amounting in the latter case to $287 per

capita. It should, however, be observed that these debts have not been contracted in ruinous and expensive wars, but have been incurred in the construction of railways and other public works, which not only open up and develop the resources of the country, and thereby promote trade and commerce, but are valuable investments, paying dividends that, besides defraying their working expenses, pay about 4 per cent. on their original cost, so that, in this view of the case, the colonies can scarcely be said to have a public debt at all, as for each liability there is, for the most part, a legitimate asset.

PUBLIC DEBT, 1880.

Victoria	£22,060,749
New South Wales	14,903,919
Queensland	12,192,150
South Australia	9,865,500
Western Australia	361,000
Total	59,383,318
Tasmania	1,943,700
New Zealand	28,583,231
Grand total	89,910,249
	$437,548,227

BANKS.

The system of banking in vogue throughout the Australian colonies is that known as the "Scottish system," and is intimately connected with the several material interests of the country. They are banks of issue as well as banks of "deposit on interest," employing the capital thus obtained not only in commercial transactions but in making advances on "pastoral runs," land selectors' leases, mines, and stock and station produce—primarily wool. By this means the banks frequently become in effect "squatters," land-owners, and owners of mines, paying large dividends to their shareholders, as well as passing considerable sums to their reserve funds.

For the following statistical information relating to the banks of Australasia we are indebted to the Australasian Insurance and Banking Record:

Number of banks engaged in business	26
Capital paid up	£14,664,618
Amount of reserved profits	5,090,005
Note circulation	4,500,000
Coin	11,500,000
Deposits	55,000,000

Average dividends, nearly 11 per cent. per annum.

The following is a summary statement of the condition of the banks in the several colonies for the quarter ended March 31, 1881:

Colony.	Number of banks.	Liabilities.				
		Notes in circulation.	Bills in circulation.	Balances due to other banks.	Deposits.	Total.
Victoria	11	£1,328,133	£83,654	£235,965	£20,364,981	£22,012,733
New South Wales	12	1,304,007	54,607	335,062	18,766,733	20,460,409
Queensland	6	334,838	14,387	312,035	3,397,122	4,058,382
South Australia	8	535,588	25,147	69,776	4,536,525	5,167,036
Western Australia	3	22,020	773	15,797	325,994	364,584
Tasmania	5	130,444	4,082	13,846	2,248,318	2,396,687
New Zealand	6	938,604	74,590	27,456	9,293,497	10,334,147
Total	51	4,593,631	257,240	1,009,937	58,933,170	64,793,978

Colony.	Assets.				
	Coin and bullion.	Landed property.	Balances due from, and notes and bills of, other banks.	All debts due to the banks.	Total.
Victoria	£3, 942, 957	£869, 023	£886, 218	£18, 215, 706	£23, 913, 904
New South Wales	3, 703, 823	557, 656	3, 874, 102	17, 219, 232	25, 354, 813
Queensland	1, 094, 393	205, 130	196, 749	4, 041, 370	5, 537, 642
South Australia	986, 381	283, 188	368, 201	5, 547, 730	7, 185, 500
Western Australia	116, 994	12, 275	10, 022	417, 332	556, 623
Tasmania	474, 832	40, 477	173, 756	1, 596, 227	2, 285, 292
New Zealand	2, 100, 368	349, 071	74, 304	11, 504, 862	14, 028, 605
Total	12, 419, 748	2, 316, 820	5, 583, 352	58, 542, 459	78, 862, 379

RAILWAYS AND ELECTRIC TELEGRAPHS.

The following table shows the number of miles of railway and electric telegraph, either open or in course of construction, in Australasia on the 31st of December, 1880:

Colony.	On the 31st of December.						
	Number of miles of railway.			Number of miles of electric telegraph.			
				Line (poles).			
	Open.	In course of construction.	Total.	Open.	In course of construction.	Total.	Wire open.
Victoria	1, 199	14½	1, 213½	3, 215½	66	3, 281½	6, 019½
New South Wales	849½	456	1, 305½	7, 955½	268½	8, 223½	13, 188
Queensland	633½	171½	805	5, 768	267	6, 035	8, 150
South Australia	667	319	986	4, 754	410	5, 164	6, 904
Western Australia	72	20	92	1, 554½	.....	1, 554½	1, 592½
Total	3, 421	981	4, 402	23, 247½	1, 011½	24, 259	35, 854
Tasmania	172½	.....	172½	878	.....	878	1, 096
New Zealand	1, 258	208	1, 466½	3, 706	.....	3, 706	9, 401
Grand total	4, 851½	1, 189	6, 040½	27, 831½	1, 011½	28, 843	46, 351

POPULATION.

According to the returns of the last census, taken April 3, 1881, the population of Victoria was 862,346; of New South Wales, 748,882; of South Australia, 286,211; of Queensland, 218,159; of Western Australia, 31,000; of Tasmania, 115,705; and of New Zealand, excluding the Maoris, 490,151; total population for Australasia, 2,752,454.

AUSTRALIAN EXHIBITIONS.

Although the Sydney and Melbourne International Exhibitions now belong to the past, the question may be asked, What are the substantial results that still remain? Sir Patrick Jennings, president of the New South Wales Commission, replying to this question in his introduction to the official record of the Sydney Exhibition, justly remarks:

That it has opened up new channels of trade and provided a greater choice of markets; that it has been the means of disseminating throughout Europe and America a knowledge of the wealth, of the resources, products, and extent of the Australian colonies; that it has done good educational service to the masses of the people, by

placing before them works of art of the highest character, and in this way propagating sound principles of taste and awakening a love for the beautiful; and that it has led to the establishment of a technological museum, formed in great part of gifts and purchases procured from exhibitors.

The same remarks apply, for the most part, to the Melbourne Exhibition. Although it is, perhaps, too soon to realize to any great extent its beneficial results, still it cannot be doubted that it has done much to further promote commercial relations with foreign countries. Not to speak of less prominent competitors, France and Germany bid high for a share of the Australian trade, and are following it up by subsidizing direct lines of steamers to carry it on. The United States, although competing at a great disadvantage, more than maintained her own, while Great Britain stoutly resisted any attempt to invade the field of her old commercial supremacy. It is, however, unnecessary to say anything further on this point, as I am preparing a full and detailed report on the subject as United States commissioner to both the Sydney and Melbourne Exhibitions.

AUSTRALASIAN STATISTICS.

The detailed statement in this report showing the commerce of Australasia for 1879, the latest practicable date for which the statistics of the several colonies could be obtained, has been prepared with great care under my own direction and supervision. It is believed to be very complete, and, having been necessarily compiled from original official sources, has cost several months of continuous labor.

It should be observed that these statistics in some respects are only approximately correct. For example, goods shipped to Europe or America *via* England are credited to Great Britain. The trade between Australasia and France and Germany appears to be somewhat more than a million of dollars. This, however, does not represent the total value of their trade with the colonies, as by a system of indent and commission agencies large quantities of goods are imported through colonial branch houses in London. The same remark applies to exports from the colonies. Wool, for instance, is generally purchased in the London market by continental manufacturers. Movements have, from time to time, been made to remedy this, and to establish a direct trade with the continent, but the efforts have, as yet, been attended with but little success. It may further be remarked that a considerable amount of imports under the head of "Other Countries" comes indirectly from Great Britain, France and Germany. Arriving in the colonies via Point de Galle they are credited to Ceylon. The same remark applies again to exports. For example, specie and gold to the value of nearly eight million dollars are entered at the custom-house as exported to Ceylon, while the whole of it was destined to the Bank of England in payment for goods received, or as remittances on account of interest due to public creditors resident in Europe.

The intercolonial trade is rather indicated than expressed, as it cannot be stated with any degree of accuracy on account of the plurality of entries at the various custom houses, occasioned by the several reshipments of the same merchandise from one colony to another. In indicating its value and extent, the main object has been to eliminate the intercolonial from the foreign trade.

O. M. SPENCER,
Consul General.

UNITED STATES CONSULATE-GENERAL,
Melbourne, Victoria, November 30, 1881.

COMMERCE AT LA PAZ, MEXICO.

REPORT BY CONSUL TURNER.

No improvement in the condition of trade and commerce in this consular district is yet to be noted. On the contrary, everything in the shape of business seems to be daily decreasing, and it really appears that the men who now rule Mexico are determined to break down all kinds of business, and prevent, if possible, any new enterprise.

Previous to 1872, the tariff of Mexico was a thing hard to be understood, even by the customs officers. Besides the regular duties, there were nearly a dozen additional duties, which rendered it nearly impossible for the importer to know what duties he would have to pay, and even the customs officers were puzzled to estimate the duties on imports.

President Juarez saw the evil and rectified it by consolidating all these duties into one, and so it remained for some time, when an additional duty of 2 per cent. was added. Thus it remained for years, and until Gonzalez assumed the presidency, but he has already added three additional duties, and the thing is fast becoming as complicated as it was in 1872. There is now the additional duty of 2 per cent.; then the duty of so much on each 100 kilograms; then another additional duty of 2 per cent.; then an additional duty on wines and liquors; the free list is abolished and on some articles formerly admitted free the duty is now so high as to amount to prohibition; for instance, coal and lumber.

Besides all these duties, the tonnage dues of vessels have been raised and considerable additions made to the port charges on all vessels from foreign ports.

As there is no industry in the country to protect, all these additional duties are so many additional charges on the consumers. The condition of the working class is rendered insupportable, and they are leaving Lower California in large numbers, in search of some place where they can live cheaper.

What bears the heaviest on the prosperity of the country are the duties on coal, lumber, and machinery. There are three lumber-yards in La Paz, all with very light stocks on hand on which they have raised the price nearly 100 per cent., and when these stocks are exhausted I do not know what will be done, as neither of the yards will import lumber under the existing law. It is impossible to manifest it as the law requires, and none of the importers feel like running the risk of fines and imprisonment.

These duties will undoubtedly have a disastrous effect upon the industry and prosperity of the country, and I understand that already a number of projected mining enterprises have been abandoned on account of them. The rulers of Mexico have, no doubt, gained large sums of money by their railroad and other concessions and they should not now legislate to render these concessions valueless.

The policy, if there is a policy, seems to be to prevent the introduction of American capital and people, to keep the people of Mexico in abject poverty so that they may be the more easily managed and the power retained in the hands of the present rulers, to prevent anything in the shape of improvement to the present miserable condition of the people

and country, and I fear that nothing good for Mexico or for the United States is to be hoped for until a more liberal spirit prevails.

DAVID TURNER,
Consul.

UNITED STATES CONSULATE,
La Paz, Mexico, October 20, 1881.

TRADE OF PLYMOUTH, ENGLAND

REPORT BY CONSUL FOX.

During the past year the trade and commerce of this district has been marked by a steady, quiet improvement in all material articles of import, with a greater inclination to increase stocks, without creating any large increase of values. The harvest has not proved excessive in yield or quality of any article nor has it caused much disappointment in condition, taking into calculation the precarious weather at the period of securing the crops. The shipping interest has improved in its tone, freights in general having had a moderate advance in rates.

Wooden shipbuilding at this port continues very restricted. China clay, the only article of considerable export, has been in increased inquiry without any advance of moment in prices.

The agricultural prospects are reported favorable. The wheat plant is generally said to be strong and healthy, also all the other autumn-sown crops.

The chief matter of commercial interest connected with this port is the decision of the Peninsular and Oriental Steam Navigation Company that their homeward-bound steamers from India, China, &c., should call at this port every week to land mails, specie, and passengers. Their first boat, in accordance with this resolve, arrived here on the 5th instant.

The consular agent at Jersey reports as follows:

I have very little to add to my report dated 30th September last, though there appears to be a gradual increase of American products arriving in this island, chiefly in articles of food of every description. Respecting the fine cattle of this island which are being exported to the United States for breeding purposes, many of the breeders and exporters of these valuable cattle have called on me, praying that I would represent to my government the hardship they incur by having to submit to a long quarantine in the United States, and they ask if the cattle would be allowed to be landed free of quarantine, provided that they were shipped direct from this island to a port in the United States. In such case, they would be accompanied by a certificate from the veterinary surgeon, duly authorized and attested by me, that they were free from any disease and that there has never been a case of cattle disease in this island. The demand for these fine breeding-cattle is greater every year, and it would be desirable if the grievances of the exporters respecting the quarantine could be removed, thereby encouraging and increasing the importation of a fine breed of cattle into the United States.

The consular agent at Dartmouth writes that American products, such as meat, tinned and canned meat, fruit, flour, &c., are consumed to a considerable extent, but not imported direct. There have been a few importations of timber from the Baltic, and the coasting trade in coal has largely increased, owing to Dartmouth having become the leading coaling station in the channel. All other descriptions of business are almost at a standstill.

HENRY FOX,
Consul.

UNITED STATES CONSULATE,
Plymouth, England, January 12, 1882.

COTTON-FRAUDS LEGISLATION IN BOMBAY.

REPORT BY CONSUL SHAW, OF MANCHESTER.

I herewith transmit some important data relating to the cotton-frauds question, so-called, in Bombay, which I believe will be of special interest and value to a large number of our people—treating, as it does, on the subject of the adulteration of Indian cotton, and giving a full and complete history of the action taken by the authorities at Bombay in reference to this matter. There has undoubtedly been a great improvement made in the system of packing and grading cotton shipped from Bombay within the past five years; and at present, the crop reaches England in excellent condition. This fact taken in connection with the well-known adulteration of Eastern cotton a few years ago, leads me to conclude that the details of the reforms which have brought about a complete change in the reputation and purity of this same class of cotton will be of special service. Moreover, the discussion now taking place in the United States upon the subject of American cotton and the best means of preventing and tracing frauds in its preparation for a foreign market renders the reproduction of the laws and regulations passed in Bombay, in reference to the same subject there, desirable.

The practical working of the laws passed and the regulations adopted in India to prevent frauds in the packing of cotton proved to be both expensive and disappointing, and the act of 1863 was modified in 1878, and this in turn was followed by a new law in 1880, but the latter did not receive the assent of the Governor-General, and so failed to become law. The following announcement appeared in the Manchester Guardian of December 12, 1881, which proves that the law of 1878 is soon to be repealed:

> We have before us the full text of the official paper issued by the revenue department of the Bombay Government last month, containing the dispatch from the secretary of state for India, anouncing the intention of the Governor-General to withhold his assent from the Bombay bill of 1880, which was designed to amend the law of the prevention of the adulteration of cotton and the suppression of fraudulent practices in the Indian cotton trade. The secretary of state points out that the effect of the veto will be to keep in force the Bombay cotton-frauds act of 1878, the objections to which "appear to be stranger" than those to the vetoed bill, and he adds that he has no objection to the introduction in the legislative council of Bombay of another bill repealing all former legislation on the subject of cotton frauds. In consequence of this intimation it was resolved by the Bombay Government that a bill should be prepared repealing the cotton-frauds act of 1878, in accordance with the suggestion of the Government of India and the secretary of state, and instructions were given to that effect.

The memorial of the Bombay Chamber of Commerce fully sets forth the views of a very influential body of commercial men upon the subject of special legislation in regard to cotton frauds, and this will be found to be both full and conclusive.

The whole question is so fully set forth and so ably discussed in the inclosures herewith submitted that an extended review of the same on my part is unnecessary. The subject of the adulteration of American cotton is one of growing importance, and unless prompt and effective steps are taken to secure the shipment of purer cotton the eastern production will certainly be largely increased, and in this event there will be danger that the market for American cotton abroad will gradually grow weaker.

The inclosure marked A is the text of the Bombay act of 1863, the one marked B is the text of the act of 1878, the one marked C is an article taken from the Bombay Gazette of May 6, 1869, and the one marked D is from the same paper for April 13, 1880. The inclosure marked E is a copy of the memorial of the Bombay Chamber of Commerce above referred to.

ALBERT D. SHAW,
Consul.

UNITED STATES CONSULATE,
Manchester, England, December 29, 1881.

THE WOOL INDUSTRY OF NEW ZEALAND.

REPORT BY CONSUL GRIFFIN, OF AUCKLAND.

Wool is by far the most important product of New Zealand. Its annual export exceeds in value that of gold by over $10,000,000. The total value of the export of wool from all the ports of New Zealand from the 1st of October, 1880, to the 30th of September, 1881, was $15,103,440, whilst that of gold was only $5,101,315. The growth of the wool industry of this colony has been extraordinary within the last few years. I find in tracing its history that in the year 1851 there were only 233,000 sheep in the colony. In 1858 there were 1,523,316. In 1861 the number was 2,760,163. The returns for the year 1881 bring the number up to 13,126,264. The wool clip for the present year is so large and of such excellent quality that it will probably not fall short of $20,000,000 in value. The original stock of sheep in this colony was nearly all drawn from Australia; occasionally a few stud rams were imported from France, Spain, and America, but only occasionally. Flock-masters continue to procure their high-class sheep from Victoria, New South Wales, and other Australian colonies.

No other of the Australasian colonies, however, seem to be so well favored for the production of wool as New Zealand. The climate of New Zealand is so mild that the sheep can run out all the year round without housing or artificial feeding. The country is abundantly watered. It is not subject to the severe winters of Canada, or the fierce heat and long droughts of Australia. The wools of New Zealand embrace a wide range of variety, condition, and staple, and are admirably adapted to the manufacture of all kinds of woolen goods. Indeed, there are few kinds of sheep that do not prosper here—Merinoes, Lincolns, Leicesters, Romney-Marshes, Cotswolds, Southdowns, cross-breeds, and quarter-breeds—all do well here.

THE SOUTH ISLAND WOOL.

The merinoes, however, especially in the South Island, prosper far better than any other kind. The New Zealand merinoes include every variety, running from small growth clothing to a broad deep clothing. The wool is clean and free from burs. Some flock-masters delight in raising sheep for the finest varieties of wool, but the great majority prefer a fair or medium quality, looking more for the return per head than per pound. There is, of course, a greater demand for intermediate wool than for fine wool, and flock-masters naturally give their attention to

that branch of the industry which is most profitable. In the finer qualities of wool the filaments vary in thickness from $\frac{1}{1100}$ to $\frac{1}{1600}$ parts of an inch, and under a miscroscope distinctly exhibit at intervals of about one three-hundredths of an inch a series of serrated rings, imbricated towards each other like the scaly zones of a serpent's skin.

Wool contains 98 per cent. of organic element and 2 per cent. of ash. The former consists of carbon, 50.65; hydrogen, 7.03; nitrogen, 17.71; oxygen and sulphur, 24.61; equal to 100. The ash contains oxide of iron, sulphate of lime, and phosphates of lime and magnesia, so that sulphur is a very important element in the composition of wool. It has been shown, according to a recent calculation, that the sheep in Great Britain extract from the soil, annually, over 5,000,000 pounds of sulphur.

SHRINKAGE OF WOOL.

There is a great difference in the shrinkage of New Zealand wools, running from 45 to 60 per cent. for clean wool, occasioned by the nature of the country on which the sheep run. For instance, in the southern part of the province of Otago, where the rainfall is heavy and the soil of a cold clay, the shrinkage of wool is very small, but change the same sheep 150 miles north, where the rainfall is light and the land of limestone formation, the shringage is great, and the wool exhibits a yellow yolk.

The majority of merino sheep are bred on stations and feed on native grasses, much of the country being too rough and mountainous for cultivation. In the summer months the sheep feed on the higher elevations, but when winter approaches they are driven to the lower country to avoid the snow on the tops of the mountains.

SHEEP RUNS.

I have visited a number of sheep runs in Otago, including those of the Hon. Mathew Holmes at Castle Rock, and the New Zealand Agricultural Company's, on the Waimea Plains. The number of sheep on the large stations varies from 15,000 to 200,000. Each flockmaster fences his run in order to reduce the expense of shepherding. The fence is generally composed of split posts carrying five or six wires. When timber is scarce the flockmaster substitutes rough iron standards for wooden posts. Nearly all the large sheep runs are leased from the government. The owners pay rent for them at the rate of seven pence per head for the sheep. In addition to this payment a bonus is also given for the good will of the lease.

The time of shearing takes place in the months of November and December. The manager or driver is constantly overlooking the shearers, for the purpose of seeing that the work is well done, that the clipping is uniform and without second cuts or steps. When the fleece is taken off it is carried to the sorting table where it goes through the process of skirting, which consists of taking off the locks, bellies, top-knots, and shank pieces, and in removing any stained wool. The fleece is then rolled up, assorted, and placed in lines. It is then ready for the wool-pack. The wool-pack is made square in order to fit into the box screw pieces. It is next pressed into bales weighing from 300 to 400 pounds each. The wool-packs are manufactured in Calcutta, being made of jute, and very strong and heavy, each weighing about ten pounds. The cost of these is from 75 to 82½ cents each. The shearers are paid from $3.75 to $4.12½ per every one hundred sheep shorn.

THE COST OF FREIGHT, &C.

The cost of sending the wool to the London market is about 4 cents per pound on ordinary greasy wool. This sum includes freight, insurance, interest, exchange, and commission. The American buyer, however, has to pay a heavier freight, and especially if he should ship direct to New York, and a very heavy duty, which would bring the expense up to about 18 cents per pound.

CROSS BRED WOOL.

Cross-bred wool ranks next to merino as regards to the quantity produced. As a rule this kind of wool is fairly grown, but it lacks a uniform character. Some fleeces are almost as closely grown as those of the merino, but others are loose and uneven, and it is difficult to combine them. No success has attended the many efforts to perpetuate this stock. Either the sire or the dam must be of pure blood in order to produce a fair quality of wool. This class of sheep are very popular when the farmer can use them for mutton. They come to maturity much quicker and their bodies are much heavier than the merinoes.

The most successful crossing of the Longwool and Merino that has been made in the South Island is when the Lincoln ram is put to the Merino ewe, and the progeny again put to the Lincoln ram, and the ewes from this cross coupled with the Merino ram.

CANTERBURY WOOL.

The wools grown in the province of Canterbury, and in those parts of Nelson and Marlborough which find their way to the port of Lyttleton, in Canterbury, for shipment, comprise Merino wools of the finest clothing and combing, Longwools of the purest English types of Lincoln, Leicester, Cotswold, and various grades of crosses between the Merino and Longwools. The Canterbury Merino is said to present the highest type of this kind of wool grown in New Zealand. The fleece is of extraordinary size. The best flocks are not confined to any particular locality. It is believed, however, that the soil of the Amuri district, where the hills are partly of limestone formation, produces a class of wool that American buyers prefer to any other grown in the colony.

The province of Canterbury contains very few pure bred Longwools, and those are the products of stud sheep, grown on agricultural farms. Wool grown on small farms is heavier in the grease and more uneven in quality than that raised on the large sheep stations. Canterbury wool is shipped direct to London, and most always in the grease, the locks and pieces being generally scoured before shipment. Very few flocks are washed before they are shorn.

NORTH ISLAND WOOL.

In the North Island Merino sheep do not prosper anything like as well as in the South Island. New Zealand being south of the equator, the climate is of course colder in the south than in the north. The sheep runs on the South Island are generally situated on the slopes of the great range of mountains that runs throughout its entire length. In the North Island the high lands are in isolated volcanic peaks, extinct or active, and not in a continuous chain of mountains as in the South. Hence the marked difference in the breeds of sheep in the two islands. Merino

sheep when placed on the more level land in the North Island, with the warm climate, more moisture, and greater force of vegetation, invariably suffer from a disease called foot-rot. The heavier class of sheep, such as the longwooled Lincolns and Leicesters, thrive very well in North New Zealand; various crosses of these two kinds are to be found there, and they have become known by the name of Lincolns. As much as from 19 to 24 pounds of wool is often sheared from a single sheep of this breed. Indeed, it is said that in the province of Auckland the average weight of a fleece of this class is from 14 to 18 pounds.

There is much to be said in favor of the Auckland climate for the growth of wool. Neither the heat nor cold is ever excessive, and the very small variation of temperature in this district between the day and night secures an evenness and length of staple, often fully 20 inches in length. In the North, too, land is nearly all held as freehold and in small tracts, as compared with that of the large sheep runs of the South Island, which are generally rented from the government for a period of fourteen years.

In the North sheep farming nearly always forms part of a system of mixed husbandry, except in a few cases where Europeans have succeeded in leasing tracts of land from the Maori or native owners. In a natural condition the land in the North Island is generally covered with heavy forests, dense scrub, or the common field fern, interspersed with various kinds of bushes, all of which require a large outlay of money in order to bring the land into a condition for sheep feeding. This naturally prevents the land in the North from being used in such large blocks as in the South. The fact, however, that the greater part of the land in the North Island is held as a freehold, instead of being leased from the government for a term of years, may, perhaps, offer greater inducements for Europeans to settle here, than in those parts of the colony where freehold estates cannot be procured.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Auckland, N. Z., December 14, 1881.

SILK MARKET OF LYONS.

REPORT BY CONSUL-GENERAL PEIXOTTO.

I have the honor to report that the total exports from this consular district to the United States for the year 1881 amounted to $11,942,209.46. For the same period in 1879 they were $9,329,957.85, and for the year 1880 $11,564,302.82, showing an increase for 1881 over 1879 of $2,612,251.61, and an increase over 1880 of $377,906.64.

I beg to inclose a printed table showing in detail the nature and amount of each of these exports.

As will be remarked, manufactures of silk goods formed the heaviest item of export. Taking all varieties and qualities into account, the total export of this class of goods amounted to $9,620,138. Raw silks come next, the total amount exported from Lyons to the United States for the year just closed, being $1,557,311; pierced cocoons, waste silk, dyestuffs, church ornaments, wines, and articles of iron and steel manufacture forming the principal feature of the other exports, amounting to $764,761.

REVIEW OF THE LYONS SILK MARKET FOR 1881.

The earlier months of the year gave little evidence of recovery from the calm which had marked its predecessor. The exports to the United States for the last four months of 1880 were less than $2,702,000, while for the same period of 1881 they reached nearly $4,439,000.

A corresponding improvement took place in the exports to other countries. As the year advanced and the results of the silk crop became known, a visible improvement transpired. In June an advance in raw silks gave new impetus to trade, which was still further augmented when it became apparent that fashion had once more turned in favor of pure silk goods.

About the 1st of June the China was reported 20 to 25 per cent. short, and a brisk demand followed for Asiatic silk, with a rise of 2 francs the kilogram. A few days later attention was turned to the European crop. In France there was an increase of about 30 per cent. on the product of 1880, but in Italy serious apprehensions were entertained on account of the unfavorable cold weather; contradictory reports were circulated, and it was rumored that the *récolte* would show a deficit of 10 to 30 per cent. Considerable transactions, with a rise of from 2 to 4 francs, according to qualities, resulted. All of a sudden these apprehensions vanished. The excellent yield of cocoons made up for the apparent deficit, and European silks lost almost all their advance.

In China, on the contrary, the deficit increased, and the probable crop for export was estimated at not more than 55,000 to 60,000 bales.

The rise and consequent excitement in June was succeeded by several weeks of calm. Business was particularly hampered for Asiatic ports. Native speculation maintained prices in Shanghai at 3 to 5 francs above those of Lyons, whilst buyers were complaining that the latter were already too high, and out of proportion with Europeans.

Excepting for special purposes consumption threatened to turn to the latter sorts, but the demand for certain heavy stuffs forced it to acquiesce in the rise, and orders began to arrive in Shanghai. The reaction soon became more general, and large contracts were formed for Chinas and Japans with a rise of 2 francs in August and of 3 to 4 francs in September, whilst Europeans remained almost stationary.

The orders for silk goods no doubt facilitated the movement, but it was hurried on by news that the exportation from Shanghai would not exceed 50,000 bales, and by the coalition of the Japanese holders, which closed the Yokohama market.

In October manufacturers received fresh orders and continued to buy freely, whilst European sorts which had remained behindhand gained in their turn several francs.

The last two months of the year have, for raw silks, been much less satisfactory. Buyers being fairly stocked, withdrew little by little.

At the same time it became probable that 55,000 to 60,000 bales would arrive from Shanghai, and Yokohama was again open; lastly the attention of the market was absorbed by stock exchange speculation, and money became scarcer for legitimate operations.

Prices, notwithstanding all these adverse circumstances, and which under ordinary conditions would have greatly affected transactions, have undergone but slight variations and have really only affected the exaggerated quotations of the far East.

This comparative firmness of the raw material fairly indicates the sound condition of the market, while the figures of the condition house of Lyons (see table No. 2), showing an increase of 15 per cent., indicate

the approximate extent of the consumption; consequently, it seems that the heavy European crops of 1880 and 1881 have alone kept prices within their present moderate limits.

THE SILK MANUFACTURING TRADE.

In former years Lyons was regularly resorted to by the great houses of America and Europe. Either one of the principals or a trusted agent came hither to make his choice of styles and place his orders, or buy out-and-out whatever seemed most available. In later times great changes have taken place, and enormous consignments to the American market have been followed by no less considerable exports to London for account of manufactures.

The large silk houses of New York have greatly reduced their direct importations, saying they can buy cheaper of the agents of manufacturers in that city than they can import for their own account.

Unless undervaluations are largely practiced, and the custom-house of the metropolis continues to be greatly deceived, notwithstanding its vigorous efforts to suppress impositions upon the revenue, in which the officers of the customs have been greatly assisted by the consuls of the principal foreign silk manufacturing districts, it would appear that this claim of our merchants was ill-founded, and that they no longer have that ambition which in other years made their direct importations the rivals of Paris and London.

It is true that the capricious goddess has had something to do with this change. No longer restricted to pure silks of plain or figured manufacture, but ranging over every conceivable style of device and pattern, there has been danger in dealing extensively in goods which were exposed to so much variation in price, according to the reigning caprice of fashion.

Thus, the months of December and January were not overburdened in Lyons, but when February arrived the necessity of being posted on the spot drew hither a considerable number of buyers, choice of patterns and necessity of making firm contracts for execution of orders contributing to the necessity of this personal presence.

Already *ombrés* in all styles appeared to be most favored by the fickle goddess. Paris and New York markets appeared better situated than that of London and gave hope that the season would open at an early hour; the winter, which proved excessively rigorous, delayed, however, these promises.

In March a veritable revival took place, and the consumption became very lively. The demand for all styles of fantasie goods at low prices, for satins, armures, satinées, satins mervellieux, and satins Aida, Rhodames, &c., in blacks and colors, came from all sides and in large proportions. Satins de Lyon, which, after a great success in the spring of 1880, had been neglected in the autumn without any explicable reason, became again one of the articles in greatest demand for England and America. All qualities, but especially those of average price, found ready sale on their arrival in New York. The latter market took also large quantities of plain black goods of medium qualities, while those of low grade and price found difficult sale, no doubt owing to the rival production of our own manufacturers.

Figured black silks of all kinds and embossed on damassées goods, the sale of which had stopped in October, 1880, and of which large stocks were on hand in Lyons, finding slow sale at disastrous prices, recovered favor to such an extent that manufacturers were compelled

to resume their production. The season which had thus been interrupted at its dawn by the severity of the weather was prolonged till June.

The same styles of goods have continued to supply the market, especially pure silk fabrics, satins, armures, satinées, figured and flowered tissues, &c.

But the veritable sensation article of the spring season were *ombrés* (clouded and shaded tissues) in all varieties and qualities, dyed in the piece as well as in flottes, and which found ready demand and sale in all the principal markets of Europe, as well as of the United States.

On the contrary, all tissues of silk and cotton have had slow and difficult sale. The favor this class of goods have enjoyed for four or five years, the handsome profits which they have realized, and the prospective demand which they appeared to promise, encouraged manufacturers to make large outlays for machinery and factories, and the investment of increased capital.

Whilst the spring season took its favorable course, and articles *à la mode* found advantageous sale, orders for the autumn, which were first presented in April, embraced an extensive variety of goods, including pure silk armures, Rhodames, merveilleux, duchesse, rich figured novelties of broad designs, plain and figured velvets in blacks and colors, plushes in every possible shade and style, and hosts of other tissues. Among the later the return to favor of *moirés* (watered silks), which had been entirely neglected for several years, is especially to be noted.

These goods have been produced in great variety of styles and in all qualities—moire française, moire antique, figured, plain, striped, and in every shade of color and black. Never, in fact, since plain goods went out of fashion, has there been produced such a variety and diversity of fancy and figured goods of pure silk.

Black figured laces of pure silk have also been in large demand, and extensively used for trimming and to set off elegant qualities of plain rich silks.

The demand, in fact, for French watered silks was but imperfectly supplied, owing to the deficiency of machinery for their production.

Cotton back satins, whose immense sale for some years past I particularly referred to in my last annual report, have become scarce, particularly in fine and medium qualities, but a revived demand for these favorite goods is already noticed.

Piece dyed silks, in spite of the low prices obtained at the close of the spring season, have recovered their favor and found a fairly active demand in late months. Figured or façonné silks, in large demand at the commencement of the season, submitted to a heavy depreciation from October, not alone, however, because of the change of fashion, but from the successful competition of our own manufacturers, who produced, especially in low grades, goods equally, if not even more, desirable than those of Lyons.

Since August England's participation is in comparatively feeble proportions to the Lyons trade.

The situation of the British market has been and remains unsatisfactory. Various causes have contributed to this state of affairs; there has been, however, a certain activity on the London market, especially for satins, but these goods have been amply supplied by the agents of Lyons houses in the British capital. John Bull buys now much more extensively than ever before the cheap silk and silk and cotton productions of Switzerland and Germany, while British manufacturers themselves produce very considerable quantities of light tissues at low prices, particularly Surahs in striped and square patterns.

In September large orders were placed here for the Paris and American markets for tissues in novelties in great variety of style and design. Some very beautiful goods will hence be upon the New York market this spring.

The year 1881 has as a whole been relatively prosperous for Lyons. The activity of business has not as in some years been restricted to a few great fabricants, but from the diversity and variety of goods demanded, extended generally to all manufacturers, small houses as well as large. The manufacturing centers of other countries have not been less active. The satins of Como have played a lively rôle. The German production has been large, particularly for satins, velvets, and plushes, while Switzerland has supplied England to an extent hitherto unsurpassed, especially in low grades of black gros grain silks.

The activity of the German and Swiss markets for European consumption will account for the considerable decrease in their consignments to New York. In spite of the extensive competition every where made to the Lyons manufacturer he has again fairly held his own. This is due, however, to his having at length awakened to the necessity of adopting improvements in machinery, and to a new spirit of enterprise which has been long been absent or dormant, and without the revival or development of which he was threatened with loss or ruin.

I have prepared and beg to Inclose a table (Inclosure No. 3), showing the comparative prices of the leading classes of silks (organzines trams and greges), in francs for the past fifteen years, viz, from 1867 to 1881 inclusive.

Also, I beg to submit a table (Inclosure No. 4), presenting the cocoon market at Marseilles for the years 1876 to 1881, inclusive, showing the arrivals during these years and stocks on hand December 31 of each year.

Extra copies of these several tables are transmitted, as the department may desire to distribute such to those interested at home.

The growing importance of American silk industry, the numerous inquiries I am constantly receiving from all parts of the United States on the subject, and the desire to aid the development and progress of what in the near future must become a new and lucrative element of national prosperity, will doubtless render such statistics and information of value.

BEN. F. PEIXOTTO,
Consul.

UNITED STATES CONSULATE,
Lyons, France, January 1, 1882.

Exports from Lyons to the United States.

Articles.	1881.	1880.	1879.
Raw silks	8,068,968.00	3,782,597.50	6,123,810.55
Silk and velvet piece goods	49,306,388.75	52,262,957.20	37,750,384.80
Silk ribbons	13,029.45	35,466.75	158,574.85
Velvet ribbons			
Crapes, laces, gauzes, &c	454,281.20	832,528.05	1,006,302.55
Shawls	34,245.00	36,033.50	16,755.50
Silk trimmings	62,659.30	213,654.85	238,845.80
Metallic trimmings and church ornaments	765,376.95	696,203.40	474,948.35
Kid gloves			535,976.85
Silk and cotton gloves	8,917.15	2,589.00	15,053.25
Woolen goods		3,241.00	107,574.25
Cotton goods	49,334.85	54,997.80	70,685.30
Leather and skins	45,658.30		51,542.05

Exports from Lyons to the United States—Continued.

Articles.	1881.	1880.	1879.
Dye stuffs	448, 524. 20	349, 800. 15	341, 477. 55
Iron and metal manufactures	133, 009. 25	90, 742. 40	26, 254. 20
Wines and liquors	535, 176. 15	495, 566. 15	378, 326. 85
Miscellaneous articles	669, 570. 95	1, 012, 370. 35	968, 716. 25
Musical instruments	41, 570. 10	49, 919. 40	75, 616. 25
Argols	103, 454. 70	.....	.....
Pierced cocoons	494, 009. 35	.....	.....
Macaroni, &c	94, 146. 75	.....	.....
Spectacles, eye-glasses, &c	28, 889. 70	.....	.....
Waste silk, combed	432, 016. 60	.....	.....
Preserved fruits	34, 007. 20	.....	.....
Weaving materials	2, 165. 45	.....	.....
Precious stones	21, 644. 19	.....	.....
Rabbit hair	12, 388. 55	.....	.....
Watch materials	3, 878. 90	.....	.....
Wooden pipes	13, 421. 84	.....	.....
Total francs	61, 876, 732. 83	59, 918, 667. 50	48, 339, 844. 70
Total dollars	11, 942, 209. 46	11, 564, 302. 82	9, 329, 957. 85

Increase over 1879 ..... $2, 612, 251 61.
Increase over 1880 ..... 377, 906 64.

N. B.—Since 1879 ribbons, kid gloves, and silk and cotton gloves do not appear in the statements. These articles were manufactured in the consular district of St. Étienne, and are set forth in the statement of the United States commercial agent at that point.

Silk market of Lyons during the past ten years, 1872 to 1881, inclusive.

MOVEMENT OF THE CONDITION HOUSE.

[Showing in bales and kilograms the amount of silk received and conditioned. The Condition House of Lyons is the largest in the world. Silk conditioned is like gold from the mint, it receives its stamp and current value.]

In bales:		In kilograms:	
1872	45, 595	1872	3, 184, 600
1873	45, 097	1873	3, 081, 700
1874	57, 261	1874	3, 895, 900
1875	65, 855	1875	4, 477, 100
1876	81, 502	1876	5, 675, 200
1877	50, 024	1877	3, 323, 200
1878	62, 123	1878	4, 252, 700
1879	64, 024	1879	4, 421, 400
1880	67, 889	1880	4, 652, 535
1881	77, 811	1881	5, 352, 207

MOVEMENT DURING THE TWELVE MONTHS OF 1881.

In bales:		In kilograms:	
January	6, 278	January	419, 239
February	6, 600	February	440, 027
March	6, 949	March	477, 711
April	4, 971	April	340, 555
May	5, 789	May	398, 112
June	7, 111	June	491, 464
July	5, 091	July	337, 095
August	6, 949	August	471, 080
September	8, 386	September	593, 788
October	7, 614	October	542, 824
November	6, 258	November	430, 854
December	5, 815	December	409, 458

Comparative table of the prices of silk (in francs) on the 31st December, for fifteen years (from 1867 to 1881), at Lyons, France.

	1867.	1868.	1869.	1870.	1871.
Organzines:	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*
France, reeled and worked, first order, 22–28	132 to 135	150 to 152	133 to 135	99 to 105	120 to 124
Piedmont, reeled and worked, first order, 22–28	122 to 130	145 to 151	123 to 128	96 to 106	112 to 116
Italy, reeled and worked, second order, 22–28	118 to 122	126 to 132	100 to 110	83 to 96	98 to 105
Trams:					
Italy, second order, 26–28	97 to 105	106 to 114	98 to 118	85 to 95	96 to 104
China, French work, 40–45	92 to 96	84 to 93	88 to 96	80 to 90	92 to 100
Greges:					
Italy, second order	92 to 102	100 to 118	80 to 110	74 to 88	85 to 105
Tsatlée, fourth market	70 to 73	66 to 68	70 to 72	71 to 73	72 to 74
Kahing, Nos. 2 and 3	64 to 69	60 to 65	62 to 67	57 to 65	62 to 72
Bengal, first order, 10–16	74 to 80	74 to 84	75 to 82	60 to 70	60 to 70
Canton, Tsatlée, No. 4					49 to 52
Grappes, No. 1, 10–16	99 to 104	100 to 106	88 to 98	72 to 75	75 to 78

	1872.	1873.	1874.	1875.	1876.
Organzines:	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*
France, reeled and worked, first order, 22–28	124 to 126	108 to 112	94 to 98	83 to 90	115 to 125
Piedmont, reeled and worked, first order, 22–28	116 to 124	102 to 106	93 to 97	81 to 85	113 to 118
Italy, reeled and worked, second order, 22–28	109 to 112	90 to 96	72 to 75	70 to 72	102 to 110
Trams:					
Italy, second order, 26–28	98 to 106	86 to 94	63 to 73	64 to 68	100 to 108
China, French work, 40–45	85 to 94	68 to 75	55 to 60	55 to 60	76 to 83
Greges:					
Italy, second order	92 to 106	80 to 90	60 to 70	56 to 60	100 to 105
Tsatlée, fourth market	69 to 71	52 to 54	42 to 43	42 to 43	71 to 73
Kahing, Nos. 2 and 3	60 to 66	44 to 48	34 to 37	36 to 40	57 to 62
Bengal, first order, 10–16	64 to 73	57 to 62	40 to 42	30 to 36	73 to 78
Canton, Tsatlée, No. 4	50 to 52	38 to 39	31 to 32	30 to 31	43 to 44
Grappes, No. 1, 10–16	76 to 79	70 to 74	53 to 55	44 to 45	88 to 91

	1877.	1878.	1879.	1880.	1881.
Organzines:	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*
France, reeled and worked, first order, 22–28	90 to 92	78 to 80	80 to 85	69 to 71	78 to 80
Piedmont, reeled and worked, first order, 22–28	84 to 88	74 to 75	76 to 80	68 to 70	74 to 76
Italy, reeled and worked, second order, 22–28	80 to 83	66 to 67	72 to 74	62 to 64	69 to 70
Trams:					
Italy, second order, 22–28	78 to 80	62 to 64	70 to 72	60 to 62	66 to 67
China, French work, 40–45	65 to 68	55 to 58	54 to 56	51 to 53	59 to 61
Greges:					
Italy, second order	74 to 78	56 to 58	66 to 68	56 to 58	59 to 62
Tsatlée, fourth market	52 to 53	42 to 44	45 to 47	41 to 42	49 to 50
Kahing, Nos. 2 and 3	44 to 49	39 to 41	40 to 42	34 to 37	44 to 46
Bengal, first order, 10–16	52 to 56	37 to 40	50 to 51	46 to 47	52 to 54
Canton, Tsatlée, No. 4	35 to 37	30 to 31	35 to 36	33 to 34	39 to 40
Grappes, No. 1, 10–16	59 to 60	48 to 49	56 to 58	49 to 50	55 to 56

The cocoon market of Marseilles (seaport of Lyons) for the past six years, from 1876 to 1881, inclusive, showing arrivals during these years and stock on hand December 31, of each year.

	1876.	1877.	1878.	1879.	1880.	1881.
Arrivals.....kilogr..	1,002,500	612,500	684,000	1,123,000	926,000	765,500
Stock 31st December.....	358,400	285,500	511,000	586,000	772,000	539,700

THE WINE CROP OF FRANCE FOR THE YEAR 1881.

REPORT BY CONSUL ROOSEVELT, OF BORDEAUX.

The details given by the minister of finance in relation to the wine crop show a considerable improvement. In 1879 only 25,000,000 hectoliters were produced in France, in 1880 29,000,000 hectoliters, and in 1881 34,138,715 hectoliters, which is an increase of 9,138,715 hectoliters since 1879. Though this shows an actual amelioration of the crop, it lacks much of being entirely satisfactory for the production of 1881, is still 15,000,000 hectoliters below the average yield of the ten years preceding 1879.

The beautiful and promising appearance of the vineyards in the early springtime seemed to indicate a still more favorable result in 1881, but after suffering from the frost in May, passing through the abnormal heated term, which succeeded the constant rains of September and October, and the unmerciful attacks of the phylloxera, the bright hopes of spring, like the vines themselves, were blighted.

Thus the departments of Charente, Hérault, and Lot-et-Garonne, which, in 1880, produced rather more than in 1879, suffered a greater loss in 1881: Charente, 45 per cent. decrease; Charente Inférieure, 9 per cent.; Hérault, 34 per cent.; and Lot-et-Garonne, 87 per cent. A number of other districts acknowledge a marked decrease in their wine production for the last year.

That the phylloxera has extended its direful conquest, is shown by the fact that only 37,000 hectares of vineyards were reported destroyed by the plague in 1880, while more than 100,000 hectares are reported destroyed in 1881. A partial compensation for this loss is noticed in the fact that a number of departments, where the scourge does not exist to any great extent, the improvement in quantity and quality is quite marked. These departments are Aisne, Aude, Cher, Loir-et-Cher, Loiret, Meurthe-et-Moselle, Marne, Nièvre, Pyrénées-Orientales, Vienne, and the Yonne.

As in other years, since the appearane of the phylloxera, the deficit has been made up by importations from Spain and Italy, which supplied about 7,000,000 hectoliters in 1881; 2,320,000 hectoliters were manufactured from dried grapes, and 2,130,000 hectoliters by other artificial processes, which together expand the total figure of production in 1881 to 38,590,000 hectoliters.

The department of the Gironde shows a decrease of 384,235 hectoliters since 1880, the production that year having been 1,660,235 hectoliters, and in 1881 1,276,000.

The average production of this department for the ten years previous to 1879 was 2,793,227 hectoliters, which, with others contrasted with present figures, will give an idea of the precarious condition of the wine trade in France.

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Bordeaux, France, January 5, 1882.

SUGAR-BEET CULTURE IN GERMANY.

REPORT BY COMMERCIAL AGENT WAMER, OF DUSSELDORF.*

In continuation of my report made to the department last September on the culture of the sugar-beet root in Germany, I desire to give here the results of some very interesting experiments with different kinds of manures in beet culture executed by Dr. Bodenbender.† Each investigation was carried out on field plots of 4 square rods. The character of the soil was a mild, and slightly sandy loam, with a loamy subsoil. The tilling began on the 9th of May, and the beets were plowed and hoed six times. The growth was pretty normal; in May and September the fall of rain was more copious than during the other months. The harvesting began on the 17th October. There were used, in *grams* (1 gram equals 15.43 grains), on each parcel of a square rod—

Parcel.	Nitrogen.	Potash.	Soluble phosphoric acid.	The manures were in the form of—
A	95	.....	95	Ammoniated superphosphate.
B	55	.....	125	Do.
C	35	.....	155	Do.
D	35	.....	425	Do.
E	105	20	105	Soluble Peru guano.
F	.....	.....	.....	Unmanured.
G	115	.....	.....	Chili saltpeter.
H	115	.....	270	Chili saltpeter and superphosphate.
J	9	347	.....	Prepared solution.‡
K	9	347	270	Prepared solution and superphosphate.

From the 1st August on, the beets were periodically examined; the percentages of sugar found in the beets juice are as follows:

Parcel.	August 1.	August 14.	August 21.	August 28.	September 4.	September 14.
A	8.53	8.99	9.74	11.43	12.49	12.56
B	10.32	11.48	9.39	12.29	12.47	13.55
C	9.28	10.19	9 79	12.32	13.26	13.40
D	9.55	9.36	10.45	12.08	12.97	14.60
E	9.58	10.13	10.55	11.19	12.97	14.32
F	9.31	8.32	9.33	11.09	12.06	13.32
G	7.10	8.46	8.00	10.38	11.50	11.58
H	7.59	8.51	7.94	9.95	10.40	11.37
J	9.52	9.25	9.97	11.58	12.70	13.24
K	9.95	10.19	10.68	11.87	12.42	13.89

From these results, the experimenter concludes as follows:

1. The ripening of the beets was hindered by the use of the large doses of nitrogen, especially in the form of Chili saltpeter.

2. The quantity of the crop was increased by the use of nitrogen, it

*Mr. Wamer's name was printed "Warner" in connection with a very interesting report on the Prussian harvest in the September No. (11) of these reports.

†Organ des Centralvereins für Rübenzucker-Industrie in der oesterr.-ungar. Monarchie, 16. Yahrg., 1878, 5 Heft., pp. 294–301.

‡This solution contained in 1,000 parts 37.88 dried substance, which consisted of 8.3 sugar; 16.67 organic matter, containing 1.68 nitrogen; 10.57 ash elements soluble in water; 2.34 ash elements insoluble in water.

was the largest by the Chili saltpeter manuring and the smallest by that of the prepared solution. The latter hastened the ripening, the former retarded it.

3. The amount of sugar was larger in the beets manured with phosphoric acid, and smaller in those manured with nitrogen. The favorable effect of the soluble Peru guano is peculiar, which was due probably from its containing nitrogenous compounds slow to decompose.

"BEET FATIGUED" FIELDS.

Fields that have produced large yields of beets for a series of years have exhibited a deterioration in their quality to afford like results, and they are called "*beet fatigued.*"

After much discussion as to the chief cause of "beet fatigue," and it being attributed to an exhaustion from the soil of certain nutritious substances, especially potash, it appears that it has been proven recently, by researches instituted by I. Kühn and Liebscher, that the growth of beets is injured by the prevalence of a parasite-beet nematode, *Heterodera Schachtii.* This parasite developes rapidly if the same fields be planted in beets too frequently, and it is only destroyed entirely by a rotation for several years in other crops. It is therefore recommended not to grow beets on the same fields oftener than at periods of every four years; although in the provinces of Halle and Magdeburg the crops are rotated only at intervals of every two and three years. Beet fatigued fields must be cultivated for 6 to 8 years in other crops, in order to eradicate entirely the parasites. Kühn hopes, however, that by the cultivation of certain plants on whose roots the parasites burrow, they will, on harvesting such plants, be easily eradicated from the soil.

Beet-root sugar industry is a source of great profit to Germany.*

As a result of the thorough cultivation and good fertilizing which beets require, the soil is, in part, left in a superior condition for the growing of other crops. Indeed, beet culture is one of the most profitable pursuits yet known in Germany, and those factories built on shares often pay a dividend of 20 to 40 per cent. to their shareholders. The farmers receive from the factories the residue left from the pressing machines, and this residue possesses valuable feeding properties for cattle and sheep, *i. e.*, its nutritive value is in proportion to its amount of dried matter and protein or nitrogenous substances. The following may be taken as its average analysis: Water, 76.668 per cent.; mineral matter (ash), 1.544 per cent.; protein substance, 1.599 per cent.; fat, 0.221 per cent.; carbon hydrates, 18.383 per cent.; woody fiber (cellulose), 4.575 per cent.

WM. D. WAMER,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Düsseldorf, December 27, 1881.

*The beet crop of 1870–'71 was valued at 54,350,301 marks (4.20 marks = about 1 American dollar). There were 5,259,734 centners (100 centners = 110 pounds) raw sugar produced, which had a value of 177,516,021 marks. To this amount must be added 1,586,336 centners molasses, valued at 5,993,541 marks; 11,897,518 centners press residue that possessed a feeding value for cattle, &c., 14,871,897 marks; and 2,928,620 centners cuttings, valued at 732,156 marks. The total value amounted to nearly $47,500,000, or 3¼ times the value of the raw material.

TOBACCO CULTURE IN THE DEPARTMENT OF THE GIRONDE.

REPORT BY CONSUL ROOSEVELT, OF BORDEAUX, ON THE TOBACCO CULTURE ORDERED BY THE STATE, FOR THE YEAR 1882, IN THE DEPARTMENT OF THE GIRONDE.

The department of the Gironde is authorized to plant tobacco in 1882, for the supply of the state factories, to the extent of 2,500 acres, in the districts of Bordeaux, Bazas, Libourne, and Réole. Said department is expected to supply for said year a contingent of one million five hundred thousand kilograms (3,000,000 pounds) of tobacco.

The number of plants to the acre must be from 16,000 to 20,000.

The prices will be fixed at the following rates per one hundred kilograms:

Higher grade, first quality, 145 francs; second, 112 francs; third, 90 francs. Lower grade, first quality, 70 francs; second, 60 francs; third, 44 francs; fourth, 33 francs; fifth, 22 francs; sixth, 10 francs.

The prices stated for first, second, and third qualities, shall be paid only for fine, light, and combustible tobacco; tobaccos which are coarse, mixed, and non-combustible, must be rejected in all classes.

For superfine tobaccos, a premium of 10 francs per 100 kilograms will be allowed above the price of first quality, according to the law of 1816; those of lower grades will be paid for according to the appraised value granted by a commission of experts.

The above will show the method adopted by the French Government, of apportioning among the various departments the production of sufficient tobacco to supply the state factories. It is thus that the large tobacco monopoly is maintained, and that the results shown by the following figures have been reached:

In 1815, the amount derived by the state from this one article was 33,872,000 francs. In 1853 the amount had risen to 193,000,000 francs, while in the latest return given it was 313,546,000 francs. This represents an average of nine francs per head of the population.

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Bordeaux, France, December 19, 1881.

FREE TOBACCO CULTURE IN THE PHILIPPINE ISLANDS.

REPORT BY MINISTER FAIRCHILD, OF MADRID.

I have the honor to inclose herewith for your information a copy and translation of two royal decrees, one dated the 25th June last, the other the 2d instant, relative to the free cultivation of tobacco in the Philippine Islands.

By the latter decree it will be observed that the tax on raw tobacco is abolished, and also that if owing to special circumstances it should be found necessary a credit will be destined for the purchase of similar tobacco in the United States or in the islands of Cuba and Porto Rico.

LUCIUS FAIRCHILD,
Envoy Extraordinary and Minister Plenipotentiary.

UNITED STATES LEGATION,
Madrid, December 16, 1881.

[From the Gaceta de Madrid.]

On the proposition of the minister of ultramar, and in accord with the council of ministers, I decree the following:

ARTICLE 1. From the 1st of July next the sowing and cultivation of tobacco in all the territory of the general government of Philippine will be free, as will likewise be its manufacture, sale, and consumption in the interior from the 1st of January of the following year.

ART. 2. The administration will take charge of the harvest in the same form as it at present takes place, the appraisal of which will commence in August of next year, the direction of hacienda of these islands taking care that the tobacco factories shall produce only the necessary stock for the supply of the consumption in the interior until it shall be substituted by individual labor.

ART. 3. With a view to provide for the wants of the factories of the peninsula a tax on raw tobacco will be levied, to be distributed among all the provinces sufficient to cover those necessities at a rate fixed by the laws of budgets as a subvention and in conformity with the conditions at present established.

ART. 4. With a view to cover the deficit which these reforms will occasion, the minister of ultramar is authorized to establish a duty which will not exceed 10 per cent. upon one hundred-weight of tobacco, raw or wrought, destined to exportation.

To unify the personal taxes in force, upon the basis of a reduction of time in the working, which will be less than twenty days.

To proceed to the revision of the present customs tariffs.

ART. 5. The minister of ultramar, after having heard the authorities and corporations of the archipelago and the council of Philippines, will submit to the examination of the council of state the regulations and necessary instructions for the execution of the present decree.

ART. 6. The government will give an account of this decree to the Cortes.

Palace, June 25, 1881.

ALFONSO.

[Translation.]

ROYAL DECREE.

On the proposition of the minister of ultramar, and in accord with the council of ministers, I decree the following:

ARTICLE 1. The tax on raw tobacco, referred to in article 3 of the royal decree of 25th June ultimo, is abolished.

ART. 2. The necessary credit for the purchase, at public auction, of raw tobacco which may correspond to that to be sent to the factories of the peninsula, in conformity with the provisions of article 3 of said royal decree, will be included in the general budgets of the Philippine Islands from 1883-'84, inclusive.

ART. 3. If owing to especial circumstances it should be convenient, in accord with the minister of finances, a credit will be destined for the purchase of similar tobaccos from the United States or the islands of Cuba and Porto Rico.

ART. 4. The minister of ultramar is authorized to prepare the measures conducive to the carrying out of this decree, of which an account will be given to the Cortes.

Given at the palace 2d December, 1881.

ALFONSO.

FERNANDO LEON Y CASTILLO,
Minister of Ultramar.

SAVINGS BANKS IN AUSTRIA.

REPORT BY MINISTER PHELPS.

Since the foundation of savings banks in civilized nations, the prosperity of such institutions has been justly regarded as a fair criterion of the industry, thrift, and progress of the people of the respective countries, as well as a thermometer of their business activity. It may therefore prove interesting to follow the mutations in the condition of the First Austrian Savings Bank in Vienna—the chief institution of that class in

the empire. I beg, accordingly, to present a statement of the deposits and withdrawals of money in each of the months of the year 1881, which is shown in the appended table, marked Inclosure 1.

It appears from the reports of 1880 that in the first two months of that year there was an increase of deposits, while in the ten following months there was an increase in the amounts withdrawn. In the first half of the past year, 1881, the deposits increased, but from the first of July decreased. This decrease is probably due to the fact that the rate of interest after the 1st July on individual deposits, on amounts of over 300 florins, was reduced from 4 to 3 per cent. The policy of this measure may therefore be questioned, although its friends may claim the previous large deposits might be ascribed to the general lack of confidence at that time in the public funds, small capitalists preferring the security of the savings bank to that of the government, even when offering a higher rate of interest.

The number of depositors in 1879 was 279,181, which, in 1880, diminished to 264,239, but in 1881 again rose to 279,966. In 1881 the average ratio of deposit by each person was 142.11 florins, and that of withdrawal 181.18 florins.

The mutations during the last twelve years are exhibited in the appended table, marked Inclosure 2.

As regards the provincial savings banks, I have not had access to their statements; but I am informed that the business of those institutions generally shows a satisfactory increase.

WM. WALTER PHELPS,
Minister Plenipotentiary and Envoy Extraordinary.

UNITED STATES LEGATION,
Vienna, Austria, January 10, 1882.

Statement showing deposits and withdrawals, 1880.

[In florins, Austrian currency.]

	Deposits.	Withdrawals.	+ or − of the deposits.
1881.			
January	4,178,558	3,541,227	+637,331
February	3,987,695	3,330,473	+657,222
March	3,494,699	3,165,045	+329,654
April	4,048,090	3,920,550	+127,540
May	4,739,395	3,391,191	+1,348,204
June	3,235,571	2,878,683	+356,888
July	3,419,052	3,509,784	−90,732
August	2,859,497	3,662,758	−803,261
September	2,162,819	3,636,969	−1,474,150
October	2,410,293	3,613,584	−1,203,291
November	2,920,128	3,039,048	−118,920
December	2,330,265	2,651,399	−321,134
Total	39,786,062	40,340,711	
Six months			+3,456,839
Six months			−4,011,488
In the year 1881			−554,649

Statement showing deposits and withdrawals—1870 *to* 1881.

[In millions of florins.]

Years.	Deposits.	Withdrawals.	+ or − of the deposits.	Capitalized interests.
1870	25, 811	21, 617	+ 4, 194	2, 743
1871	31, 990	23, 617	+ 8, 373	3, 223
1872	38, 538	28, 598	+ 9, 940	3, 882
1873	72, 351	44, 465	+27, 886	4, 808
1874	67, 530	60, 458	+ 7, 072	6, 078
1875	48, 001	53, 469	− 5, 468	6, 308
1876	39, 878	53, 401	−13, 523	6, 003
1877	34, 690	44, 883	−10, 193	5, 682
1878	32, 082	37, 788	− 5, 706	5, 592
1879	42, 424	39, 672	+ 2, 752	5, 586
1880	41, 434	44, 553	− 3, 119	5, 338
1881	39, 786	40, 341	− 555	5, 400
Total	514, 515	492, 862	+21, 653	60, 623

AUSTRO-HUNGARIAN GRAIN IMPORTS AND EXPORTS FOR 1881.

REPORT BY CONSUL-GENERAL WEAVER.

From the official report recently published of the exports and imports for this empire, I compile the following table showing the commerce in grain during the agricultural year comprising August 1, 1880, to July 31, 1881, given in tons of 1,000 kilograms, viz:

Articles.	Imports.	Exports.	Balance.
Wheat ..... tons..	325, 676	204, 189	121, 487
Corn ..... do...	227, 358	72, 456	204, 902
Rye ..... do...	65, 660	78, 085	12, 425
Barley ..... do...	32, 040	263, 388	231, 348
Oats ..... do...	21, 245	120, 561	99, 316
Millet ..... do...	20, 458	5, 892	14, 566
Buckwheat ..... do...	4, 637	7, 626	2, 989
Total	747, 074	752, 197	5, 123

From the foregoing table it will be seen that the balance of 5,123 tons grain is in favor of the exports, consisting of principally barley and oats, while the excess of imports is corn and wheat. In the year 1879–'80, the excess of imports of grain was 160,000 tons, while in 1878–'79 the excess of exports of grain was 766,000 tons, viz:

Years.	Imports.	Exports.
1880–'81 ..... tons..	747, 074	752, 197
1879–'80 ..... do...	640, 900	480, 300
1878–'79 ..... do...	432, 300	1, 200, 300
Total in three years	1, 820, 274	2, 432, 797

Giving a balance of 612,523 tons exports.

The origin and destination may be inferred from the more complete returns of 1879, when of the total imports of wheat 36 per cent. came from Roumania, 24 per cent. from Russia, 15 per cent. from the German Empire, 14 per cent. entered at the seaports of Trieste and Fiume, 6 per cent. came from Italy, and 4 per cent. from Servia. Of the corn 87 per cent. came from Roumania, 14 per cent. from Russia, and 15 per cent. from Italy.

Of the exports for the same period, 89 per cent. of the wheat, 95 per cent. of the barley, and 90 per cent. of the oats crossed the frontier into the Empire of Germany.

This traffic for August of 1881 manifests a great increase in the balance in favor of the exports, resulting, however, more from the small imports than from the large exports, as follows:

	Imports.	Exports.	Balance.
1881.....tons..	29,702	49,105	19,403
1880.....do...	37,436	55,153	17,717
1879.....do...	37,920	46,640	8,720

JAMES RILEY WEAVER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, November 10, 1881.

THE HUNGARIAN STATISTICAL TAX.

REPORT BY CONSUL-GENERAL WEAVER, OF VIENNA.

Last spring, in the Hungarian Reichstag, a law was passed, approved March 14, to go into operation May 1, requiring for statistical purposes special declarations of imports to and exports from the territory of the Hungarian Monarchy. This law was at once attacked by the press, the commercial, and industrial societies of Austria proper, on the ground that it was a violation of the fundamental compact entered into in 1877 between Austria proper and Hungary, and that the stamp duty of two kreuzer to be paid on each declaration constituted an entry duty on the commerce between the two parts of the Austro-Hungarian Empire; but after a heated discussion, carried into the Reichsrath, and by delegations and petition referred to the common ministry, it was finally by the latter declared to be only a statistical tax.

As this law at the time created bitter feeling, and may yet become a precedent for further legislation that may greatly disturb the harmony of this empire, I beg to inclose, herewith, a literal translation, as follows:

I. For statistical purposes, special declarations of shipments of merchandise which are delivered to any railway or steamship company for the purpose of export from or import into the territory of the Hungarian Monarchy, must be furnished. Personal baggage is not subject to this regulation.

II. These declarations must be made upon forms issued for this purpose, and stamped with two-kreuzer stamp, whose columns are to be filled up as follows: Name of railway or ship station; place of shipment and destination; character of goods; quantity and value.

III. For similar goods sent at the same time to the same destination, if these goods are shipped by piece or in bulk, or in several packages, only one declaration is required. For shipments containing different articles in several packages as many declarations are required as there

are different articles. For a single package containing different goods only one declaration is required.

IV. The filling up of the forms, particularly by what designation and in what quantities expressed, will be regulated by subsequent decree.

V. Railway and ship companies in the territory of the Hungarian Monarchy are allowed to accept only such shipments for transportation abroad as are accompanied by such duly executed declaration.

VI. The shipper must prepare and deliver to the railway or ship companies declarations of all shipments which are intended for export from the Hungarian Monarchy. For shipments which arrive into the Hungarian Monarchy the railway and ship companies are required to prepare the necessary declarations, but they have the right to collect from the receiver of the goods the price of the stamp attached to the declaration.

VII. The declarations are to be delivered, within a time to be stipulated by the ministry, to the royal Hungarian statistical bureau by the railway and shipping companies.

VIII. Instructions issued by the railway and shipping companies to their officials for the punctual execution of this law must be presented for approbation to the ministry of agriculture, industry, and commerce.

IX. The railroad and shipping companies are required to hold responsible, and to punish in a disciplinary manner, their officials violating this law. Such violations are to be reported to the minister of agriculture, industry, and commerce.

X The minister of agriculture, industry, and commerce obtains, through officials specially appointed for this purpose, evidence if the railway and ship companies and their officials conform to this law and instructions. The railway and ship companies are required to furnish these officials all desired information, and to lay before them the documents and books of the company.

XI. It will be determined by decree to what extent and from what time this law will apply to shipments by post.

XII. This law goes into operation May 1, 1881.

XIII. The minister of agriculture, industry, and commerce, and relatively the minister of public works and communications are intrusted with the execution of this law.

An ordinance signed by the respective ministers was published April 14 prescribing further regulations in detail, among other matters designating 378 categories of articles, classified under 19 general heads similar to those in the general tariff of entry-duties, in conformity to which the declarations should be made, and directing that monthly reports should be made to the statistical bureau by the railway and other transportation companies not later than two weeks after the expiration of the month.

These reports have been now published for May, June, and July, from which I collate the following items of interest commercially, viz:

Months.	Imports.		Exports.	
	From Austria.	From other countries.	To Austria.	To other countries.
	Florins.	*Florins.*	*Florins.*	*Florins.*
May	12, 086, 000	5, 080, 000	17, 810, 000	4, 140, 000
June	12, 000, 006	5, 140, 000	18, 230, 000	5, 110, 000
July	16, 660, 000	6, 230, 000	19, 560, 000	8, 820, 000

The traffic between Hungary and Austria proper for the same period consisted principally of the following chief categories reported in millions of florins, viz:

	May.		June.		July.	
	Import.	Export.	Import.	Export.	Import.	Export.
Colonial wares, tropical fruits	1.19	0.40	1.30	0.44	1.32	0.63
Grain, fruits, vegetables	0.29	7.35	0.74	6.32	0.38	7.22
Animals and their products	0.51	4.77	0.41	5.00	0.37	3.85
Wine, beer, and eatables	0.29	1.39	0.25	1.07	0.28	0.96
Textiles and clothing	4.46	0.50	4.01	0.56	7.32	0.72
Leather and gutta-percha wares	0.86	0.17	0.57	0.14	1.22	0.22
Wood, bone, glass, stone, and clay ware	0.51	0.11	0.54	0.09	0.63	0.22
Metals and metal wares	1.02	0.38	1.31	0.32	1.30	0.29
Instruments, machinery, and fancy goods.	0.53	0.09	0.83	0.09	1.03	0.10
All others	2.42	2.65	2.44	4.20	2.81	5.25
Totals	12.08	17.81	12.40	18.23	16.66	19.56

From the above table, it will be observed that while Hungary imported from Austria proper, during the three months of May, June, and July, wares to the amount of 41,140,000 florins, she exported in the same period 55,600,000, showing a balance of trade against Austria, during the three months of 14,460,000 florins; also that while she imported principally textiles, colonial and metal wares, she exported almost exclusively field and garden products, animals and their products, thus sustaining her reputation of being almost exclusively an agricultural state.

JAMES RILEY WEAVER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, October 29, 1881.

AUSTRO-HUNGARIAN BUDGET FOR 1882.

REPORT BY CONSUL-GENERAL WEAVER.

As you are aware, the Empire of Austria-Hungary constitutes a biparte state, having two parliaments, the Austrian Reichsrath and the Hungarian Reichstag, while the connecting links between these countries are the same hereditary sovereign, a common army, navy, and diplomacy, and the controlling body known as the Delegations. These Delegations form a parliament of 120 members chosen by and representing the legislatures of Austria proper and Hungary, the upper house of each returning 20 and the lower house 40 delegates. On subjects affecting common affairs, viz, the army, navy, diplomacy, and the finances thereto appertaining, the delegates have a decisive vote, and their resolutions require neither the approbation nor confirmation of their respective assemblies. They ordinarily sit and vote in two separate chambers, but if no agreement can be arrived at in this manner then they must meet together, and, without debate, cast a final vote which is binding on the whole empire.

To these Delegations are responsible for the discharge of their official functions the ministers in charge of the three departments of foreign affairs, of war, and finances for the whole empire.

This necessitates three separate budgets, one submitted to the Reichstag by the Hungarian minister of finance, one to the Reichsrath by the Austrian minister of finance, and a third to the Delegations by the minister of finances for the whole empire.

According to the fundamental agreement between the two countries, the expenses in common are provided for as follows: After deducting 2 per cent. of the whole, which is to be met by Hungary, Austria provides for 70 per cent. of the remainder and Hungary the balance of 30 per cent.

Referring to my dispatch No. 175, under date of October 22, transmitting the Hungarian budget for 1882, I beg to inform you that on the 27th ultimo the minister of finance for the whole empire laid before the Delegation assembled in this city the common budget for 1882, which amounted to 117,752,576 florins, of which 110,150,617 florins were for ordinary expenses and 7,601,959 florins, extraordinary expenses. When compared with the amounts approved by the Delegation for the current year, the foregoing figures show an increase of 1,906,659 florins in the total, resulting from an increase of 2,261,039 florins in the ordinary and a decrease of 354,380 florins in the extraordinary expenses. These expenses were divided among the three departments as follows:

	Florins.
War	111,482,223
Foreign affairs	4,218,900
Finance and state pensions	2,051,453
Total	117,752,576

The principal items comprised in the above are the following:

	Florins.
Army	101,893,394
Navy	9,588,829
Subsidy to Austro-Hungarian Lloyds	1,300,000
Military pensions	1,280,000
Diplomatic expenses	1,194,600
Consular expenses	715,600
All others	1,780,153
Total	117,752,576

The total receipts for the same period are estimated at 3,304,870 florins, being 9,678 florins less than for the current year, which being subtracted from the total expenditures leaves a balance of 114,447,706 florins to be voted by the Delegations, being an increase of 1,916,337 florins over the amount voted for 1881.

To this, however, an additional credit of 4,689,148 florins is to be added resulting from an excess of excise duties paid back to the manufacturers of sugar, brandy, and beer, when the same are exported, over the total excise duties collected, viz:

	Florins.	Florins.
Total entry duties collected		31,455,852
Expense of collecting same		1,850,000
Net balance		29,605,852
Restitution or drawback on exports:		
In Austria	31,500,000	
In Hungary	2,195,000	
Total		33,695,000
Deficit to be covered		4,089,148
Making a total to be voted for of		119,136,854
Of which Hungary pays 2 per cent		2,382,737
Remaining		116,754,116
Of which Austria pays 70 per cent		81,727,881
And Hungary the balance of 30 per cent		35,026,235

It will be observed that in the foregoing budget the estimates for the war department absorb a very large part of the whole, namely, over 111,000,000 florins; nevertheless, this amount does not comprise all the war expenses for the empire. Each country has its militia apart from the common, regular army, the Austrian Landwehr, and the Hungarian Honved, which are supported by their respective governments, as, for example, the Austrian minister of finance asked a credit of 7,165,377 florins for 1882, and although the estimates of the Austrian minister of finance for the national defense is not yet presented for 1882, it amounts annually to about 9,000,000 florins, making a grand total of 129,000,000 of florins annually for the war expenses of the Austro-Hungarian Empire, which, estimated at 41½ cents the average value of the florin, amounts to $53,500,000.

But while we cannot but feel surprise at the fearful burden imposed upon this nation for the purpose of national defense in time of peace, yet our surprise becomes amazement when we see a revenue of 29,000,000 florins of entry duties melt away and even become transformed into a deficit of 4,500,000 florins through the present method of subsidizing certain industries by means of drawbacks on exportations of sugar, brandy, and beer.

JAMES RILEY WEAVER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, November 3, 1881.

THE EUROPEAN TELEGRAPHS FOR 1880.

TRANSMITTED BY CONSUL GENERAL WEAVER OF VIENNA.

I beg leave to inclose you herewith a copy of a very valuable table showing the condition of the telegraphs of the nations of Europe during 1880. This table was prepared in the statistical department of the imperial royal ministry of commerce for Austria, and appeared in the Austria, a statistical weekly, published in connection with the same department. As the information therein embraced, giving the area, population, length of line, number of offices, operations, dispatches, receipts and expenditures for each nation, in such a compact manner, appears to me to be of great value, I would suggest that its publication in our monthly consular reports would give general satisfaction.

From a careful calculation made from the data contained in the inclosed table the following comparative table has been constructed showing—

First, the number of paying dispatches sent in each country for every thousand inhabitants;

Secondly, the length of wires for every thousand square kilometers of area; and

Thirdly, the average number of inhabitants to each telegraphic office.

States.	Pay dispatches per 1,000 inhabitants.	Length of wires in kilometers per 1,000 square kilometers.	Population to each telegraphic office.
Switzerland	972	387	2,426
Great Britain and Ireland	852	618	6,430
Holland	781	419	10,133
Belgium	611	847	7,172
Denmark	552	244	7,009
France	496	372	5,005
German Empire	371	461	4,534
Sweden and Norway	298	45	6,272
Greece	236	88	18,874
Italy	222	290	12,236
Austria-Hungary	204	157	10,661
Roumania	138	64	26,746
Portugal	134	100	23,218
Spain	114	80	45,840
Russia	76	8	38,467

From the foregoing table it would appear that Switzerland sends the largest number of dispatches per inhabitant, viz, 972 per thousand inhabitants, while Russia sends only 76. In the length of telegraphic wires Belgium holds the first position, having 847 kilometers per 1,000 square kilometers of area, while Russia is last, with only 8 kilometers; but in the number of offices per inhabitants Switzerland is first, having one telegraphic office for every 2,426 inhabitants, while Spain has one for every 45,840. It may be further seen that while Switzerland, Great Britain, Belgium, and Holland enjoy the greatest telegraphic facilities and activity, Russia and Spain enjoy the least of all the European nations, but as the Russian Empire is heavily weighted with Asiatic territory it may be justly concluded that of all European nations Spain stands last in regard to telegraphic affairs.

If the receipts and expenditures for each state be compared, it will be seen that generally the former surpass the latter; but in the case of Denmark, Netherlands, Belgium, Portugal, and Spain the latter surpass the former, England showing the largest balance—37,000,000 florins, or about 23 per cent. of the total receipts.

I regret not to be in possession of sufficient data of the telegraphs of the United States, in order to make a comparison with those of Europe. There can be no doubt, however, that in length of line the United States far surpasses any two of the great European nations, since the Western Union Telegraph Company reported by the Berne International Bureau in 1879 as having alone 137,803 kilometers of line, while in the inclosed table the Russian Empire is given 86,804; the German Empire, 70,826; France, 66,148; England, 42,334; and Austria-Hungary 36,701 kilometers. The same authority estimates at the end of 1879 the length of the telegraphic lines of the world at 615,632 kilometers, with 1,739,953 kilometers wire, covering an area of 42,000,000 of square kilometers, with a population of 664,838,000 inhabitants.

JAMES RILEY WEAVER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, November 23, 1881.

Condition of the telegraphs of the nations of Europe in 1880.

States.	Area in square kilometers. a	Population last census or estimate.	Length of line in kilometers.	Length of wire in kilometers.	Offices.		Instruments.	Personnel.	Dispatches paid.			Free dispatches.	Receipts in florins.	Expenditures.	
					States.	Private.			Interior.	International.	Total.			Ordinary.	Extraordinary.
Great Britain and Ireland	314,952	35,003,718	42,334.1	194,712.1	4,020	1,423	12,947	11,367	25,913,534	3,906,911	29,820,445	.....	16,109,070	12,416,760	.....
Denmark	38,283	1,969,454	3,528.0	9,345.0	132	149	290	584	442,828	644,394	1,087,222	37,902	371,516	417,458	111,424
Norway	318,195	1,900,000	7,517.0	13,666.0	127	122	452	740	491,929	316,009	807,938	68,727	521,120	585,371	13,909
Sweden	442,818	4,578,901	8,288.0	20,336.0	176	608	520	*b*694	*c*673,030	450,224	1,123,254	28,565	746,304	689,858	.....
Russian Empire *d*	21,759,973	87,620,934	86,803.8	161,461.3	1,162	1,464	2,464	9,300	5,768,255	1,065,427	6,833,682	455,870	12,439,508	9,919,478	1,504,371
Austria-Hungary	624,239	37,825,889	36,701.5	98,156.8	1,556	1,992	3,321	3,943	5,311,166	2,402,463	7,713,629	579,701	4,974,341	4,817,041	116,883
Cisleithania	300,234	22,130,705	23,087.7	62,261.8	1,147	1,407	1,901	*b*2,597	3,296,943	*e*1,999,372	5,296,315	446,984	3,620,411	3,276,381	66,736
Transleithania	324,005	15,695,184	13,613.8	35,895.0	409	585	1,420	*b*1,346	2,014,223	*f*403,091	2,417,314	132,717	1,353,930	1,540,660	50,147
Switzerland	41,390	2,846,102	6,555.9	16,017.8	1,074	103	1,607	1,583	1,751,018	1,016,220	2,767,238	22,929	949,418	725,163	.....
German Empire:															
Empire	445,292	37,980,718	50,960.5	213,327.4	5,659	2,816	10,291	*b*2,716	9,120,304	4,964,470	14,084,774	327,824	*g*.....	*g*.....	*g*.....
Bavaria	75,863	5,271,516	8,118.0	23,576.4	1,048	64	1,865	*b*380	729,218	1,195,745	1,924,963	78,177	544,583	539,415	30,092
Wurtemburg	19,504	1,970,132	2,748.0	7,266.0	377	11	693	*h*851	230,655	557,597	788,252	*i*332,568	209,937	181,002	24,707
Netherlands	32,973	4,012,693	3,821.3	13,817.0	191	205	462	1,373	*k*1,967,155	1,167,368	3,134,523	26,513	870,589	1,164,700	71,644
Luxemburg	2,587	209,570	310.0	536.0	22	41	137	*b*18	23,401	44,272	67,673	3,871	12,162	21,329	80
Belgium	29,455	5,536,654	5,608.0	24,995.0	673	99	1,344	*b*2,221	2,028,021	1,392,389	3,420,410	*i*2,753,227	1,006,515	1,187,913	32,730
France	528,572	36,905,788	66,148.0	196,618.0	3,707	3,676	8,055	*h*45,444	14,914,940	3,390,053	18,304,993	1,015,933	10,309,200	*g*.....	*g*.....
Portugal	98,829	4,550,699	4,358.0	9,869.0	195	1	323	894	384,734	224,665	609,399	90,202	301,424	447,674	36,642
Spain	507,036	16,731,570	16,124.0	40,405.0	354	11	735	3,081	1,397,451	508,417	1,905,868	316,561	1,649,523	2,478,568	.....
Italy	296,305	28,437,091	26,114.0	85,733.0	1,565	759	2,534	5,097	5,175,291	1,141,868	6,317,159	194,388	3,504,526	2,895,388	18,000
Greece	*l*51,860	1,679,775	3,573.0	4,580.0	88	1	157	379	293,865	103,407	397,272	7,473	202,957	197,721	.....
Roumania	129,947	5,376,000	5,209.5	8,280.7	103	98	465	*h*1,401	488,414	252,398	740,812	200,341	572,839	*g*.....	*g*.....
Servia	48,450	1,682,452	2,180.5	3,135.8	62	.....	90	326	128,622	56,567	185,189	25,216	77,481	170,464	14,016
Bulgaria	62,021	1,998,060	2,170.9	3,134.3	34	10	73	237	73,830	47,094	120,924	10,746	139,710	177,952	.....

a. For the statistical year 1880–'81. *b*. Omitting the personnel of combined stations. *c*. Including 122,189 dispatches sent by railway lines *d*. Including Finland and Asiatic territory. *e*. The 428,181 telegrams sent from Hungary to Austria are included in the interior traffic of Hungary. *f*. The 460,941 dispatches sent from Austria to Hungary are included in the interior traffic of Austria. *g*. Cannot be given in consequence of the union between the direction of postal and telegraphic affairs. *h*. Including the personnel of the post-office. *k*. Comprising 51,806 dispatches from railway and private lines which did not pass over the telegraph lines belonging to the state. *i*. Service dispatches. *l*. As it existed in 1878.

SEAL AND WHALE FISHERIES IN NORWAY.

REPORT BY CONSUL GADE OF CHRISTIANA.

In my annual commercial report of October 28, 1881, I referred to the sealing and whaling expeditions to the coast of Finmark, which were fitted out from the port of Tonsberg within this district. In supplement to those remarks I will now add some further details taken from one of the newspapers in this city in its report on the fisheries of Norway during the past year.

Seal fishing in the Arctic Sea in 1881 was carried on by 15 vessels, two of which belonged to this port, and two to that of Gothenburg, in Sweden, the latter one of which was Professor Nordenskiold's celebrated steamer Vega, were manned by Norwegian masters and crews, and cleared, as usual, from the Norwegian port of Sandifjord.

The Vega returned with 5,900 seal skins, and the Capella with 5,555, a number which none of ten Norwegian vessels could reach. Only one of the sealers was a sailing vessel of 181 tons burden, and this caught 2,400 skins, proving more successful than many of the larger steamers, which register from 200 to 350 tons.

The returns of the seal fishing in 1881 may be estimated at about 600,000 crowns, but the expenses of the fitting out must have been at 350,000 crowns. To this sum must also be added the shares due to masters and crews. The final net profit can hardly be very large.

This industry, which was at first carried on in this country by small and cheap vessels, now requires a large capital. The cost of a modern sealer, completely fitted out, is estimated at between 220,000 and 240,000 crowns, but it is believed that in future they may be more cheaply built.

A sealer now building at Sandifjord is to cost only 180,000 crowns, or between 40,000 and 60,000 crowns less than has hitherto been the case. The prospects of this industry would become more promising if the capital placed in the vessels used could be materially diminished.

The Scotch sealers from Dundee, who are engaged on the same fishing grounds as the Norwegians, have not been more successful, as 9 of their vessels only caught 13,000 seals.

The prices of the Norwegian seal-skins have probably been reduced by the brilliant result of the last Newfoundland seal fishery, which is carried on by English and Americans and which yielded this year 455,813 young and old seals of a value of $1,250,000, calculated on the European market.

The young seals between Labrador and Newfoundland are considered of greater value than those caught farther eastwards by the Norwegian and Scotch fishermen.

The floating ice in 1881 extended much farther to the south and nearer to the coasts of Norway than usual. It was even found between 15 and 20 Norwegian miles north of the North Cape. This circumstance was not without its influence on the temperature of the year, as the summer was unusually cold, but at the same time the opinion has been expressed that it was advantageous to the whaling on the coasts of Finmark, which was very considerable. It is supposed that ice drove such a supply of food into the fiords of Finmark, that whales, fish, and sea-birds were drawn there in crowds. During the month of March the Varanger Fiord is said to have offered a splendid spectacle; several

thousand whales flocked in and carried on the wildest antics. The sea was covered with columns of spray, and the heavy sound of the whales breathing could be heard as far off as Vadsó. The whale is, however, protected during this month, and the fishing could onlybegin at the end of May, from which time it continues throughout the summer. Two hundred and eighty whales were caught in 1881, the largest number ever killed in one year off the Norwegian coasts. Some of the whales were described as having a length of 90 feet and a circumference of 40 feet. Such whales are not met with every day, but neither are they of exceeding rarity.

The whaling business in Norway increases and engages larger capital every year. Whalers are now fitted out from several ports in Southern Norway, as well as from ports east and west of the North Cape, and five different companies were in 1881 represented by steamers. The first promoter of the whale and seal fishing in Norway, Capt. Sven Foyn, alone caught last summer 107 whales, and is now building two new steamers for whaling. Another vessel caught 60 whales on the same fishing grounds. Though it appears that whales are abundant on the shores of Finmark, it must be borne in mind from previous experience that these animals must finally be exterminated.

The present fishing grounds are circumscribed, and there may come a time when these giant animals, who propagate but slowly, may disappear from the waters where they resort while devouring the masses of fish they drive in front of them.

The value of an ordinary whale has been estimated at about 2,000 crowns, which for 280 whales killed last summer gives a total sum of over half a million crowns. To draw a comparison, we may state that the 11 steamers fitted out this year from Dundee, Scotland, for whale fishing off Greenland, caught 48 whales valued at £35,000, or 630,000 crowns.

The fishermen engaged in the important cod-fisheries off the Finmark shores have protested strongly against the whale-fishing on their usual fishing grounds, and to the south of this country we find the same prejudice against whale-fishing among the Swedes, who are this winter engaged in large herring fisheries. They have lately opposed the approach of a Norwegian whaler in the waters where they are engaged. The Norwegian whaler, which had been hired by a Swedish firm, was driven off on the plea that it was unlawful in Sweden to shoot where herring are being fished.

Last spring the port of Tonsberg had also fitted out a vessel for salmon and cod fishery on the shores of Labrador. This vessel was lost, but the persevering merchants of Tonsberg are now building another vessel for the same purpose.

GERH. GADE,
Consul.

UNITED STATES CONSULATE,
Christiania, January 7, 1882.

PROPOSED INTERNATIONAL EXHIBITION AT ROME.

REPORT BY MINISTER MARSH.

Some three or four years since the formation of an Italian National Association for holding and conducting a universal exhibition of industrial and commercial products, to be opened at Rome in the year 1885, was announced in the public journals of Italy, and numerous handbills and other publications in the name of the association were largely circulated in this and other European countries. The project appears to have originated with Mr. Cesare Orsini, an Italian citizen not holding any official position nor apparently otherwise authorized to speak in behalf of the government.

The proposal at first excited little attention, from want of public or other responsible guarantees for the proper conduct of the exposition, but lately various conspicuous individuals, including several members of the present or recent governmental cabinets, have given their names and patronage to the enterprise, and committees for its promotion have been formed in various parts of Europe and, I believe, in the United States. Some of the American legations in Europe, including our own, have been asked to encourage and aid the project, and I have been consulted by several of my colleagues and other prominent Americans on the subject. Under these circumstances I thought proper to address a note of inquiry to the ministry of foreign affairs as to its relations with the association and its objects. From the reply of the minister, of which I inclose a copy and translation, you will perceive that the Italian Government assumes no responsibilities whatever on the subject, but that the exposition is to be regarded as a purely private one.

GEORGE P. MARSH,
Envoy Extraordinary and Minister Plenipotentiary.

UNITED STATES LEGATION,
Rome, December 22, 1882.

[Inclosure.]

ROME, *November* 15, 1881.

Mr. MINISTER: Your excellency, by the note which you did me the honor to address to me some days since, has requested me to furnish you with some explanations in regard to the project of a universal exposition to be held at Rome in 1885–'86, and especially in regard to the part which the Government of the King has taken, or intends to take, in it.

In reply to the note of your excellency, I must state that the Government of the King has not yet taken any resolution with regard to this enterprise, which has merely a private character, and that, nevertheless, in consideration of the advantage which would accrue from it to the capital of the kingdom, it cannot but consider it with favor and with that sympathy which attaches itself to every work intended for the public good. In this sense, therefore, must be understood the adhesion given to the project by official personages, adhesion, however, which in no way binds the action of the government.

As early as the 8th of last August, I thought it proper to direct, on the present subject, a circular to the royal embassies and legations, explaining to them that which I now have the honor to communicate to your excellency, notifying them that in the present state of things they were to abstain from everything which might, directly or indirectly, involve their own responsibility or that of the royal government.

Accept the assurance of my high consideration.

MANCINI.

Mr. GEO. P. MARSH,
Minister of the United States, Rome.

TARIFF AND TARIFF REGULATIONS OF PORTO RICO.

REPORT BY COMMERCIAL AGENT HUBBARD, OF MAYAGUEZ.

The entire tariff of import and export duties of this island has been remodeled, the system itself being completely changed, and now duties are paid principally upon weight and measurement instead of *ad valorem* as formerly.

I therefore add to the usual tables one of comparative duties, which I inclose herewith, marked E, which states—

The duties under former tariff.

The duties under present tariff.

The difference between the former and present tariff.

The present duties under Spanish flag.

By this table it will be seen that for a number of articles of ordinary consumption imported from the United States, the present tariff is favorable to importers and consumers, but for butter, cheese, grindstones, codfish, herrings, shingles, and leaf tobacco a considerable increase has been imposed, while for pork and crackers, or biscuits, the new duties are enormous, and for manufactured tobacco it is so high that it amounts to a prohibition.

This tariff is much opposed to the interests of this colony. Some articles which could easily have supported their former duties were reduced without reason, while others that are of first importance were almost unaccountably increased. As an instance of this latter, I will name empty coffee bags, which are of absolute necessity for the export of the crops of coffee. These bags are largely imported from England and Germany, where they cost, according to quality, say about 12 cents each. The former duties amounted to not quite 3 cents each, while under the present tariff they have to pay about 15 cents.

In fact, there are so many incongruities in the new tariff that a committee has been formed, and is now sitting at St. John's, to investigate and note all complaints and advocate the settlement of this much-vexed question, so that the interests of the government and the commerce may agree as nearly as possible.

This committee will remain in permanence until the 1st of April next, when their report will be made and sent to the home government for its decision; meanwhile our local government seems anxious to aid commercial interests in the matter, and all mail matter addressed to committee from any part of the colony is allowed to be sent free of postage.

Various changes have been made in the system of stamps and stamped paper, to go into effect on the 1st of January next; but this will affect legal matters principally, except in regard to books kept by merchants, on which heavy stamp duties will be enforced on all books commenced after that date; when the system goes into effect, the stamp tax will amount to $100 to $300 yearly on mercantile houses here, according to their importance.

FINES.

It is much to be regretted that the extremely vexatious and costly fines to masters of vessels for faults and errors in their manifests cannot be done away with, but as long as the present system exists, by which the revenue clerk or official who discovers the error or default

participates directly in the amount of the fine, they will be continued, and the only way to avoid them is by the exactitude and correctness of the manifests.

Under the new tariff, the duties being calculated principally by weight, the gross weight in kilograms of all goods shipped should be correctly stated, and the merchant or banker having in charge the making up of the manifests should be impressed with the importance of his duty and take particular pains to give an exact statement of the gross weight of every article in Spanish kilograms. I further recommend that any articles on which there is any doubt should be weighed before going into the ship and the exact weights inserted in the manifests.

Two cases of fines have lately come to my knowledge officially, which will serve to illustrate this subject: The American schooner Ruth Darling arrived here from Jacksonville on the 31st of October last, with about 160,000 feet of pitch-pine lumber; the calculation should have been 2 kilograms per foot of lumber, making 320,000 kilograms; instead, however, of following this rule, which is well known, or ought to be, in every port from which pitch-pine lumber is shipped for Port Rico, the party who made the manifest of the cargo in Jacksonville calculated half a kilogram per foot, making 80,000 kilograms instead of 320,000.

In this case it was probably not the intention of the party in question to defraud the government, but it appeared so. The vessel was fined $400 Spanish gold, besides having to pay tonnage duty on 320,000 kilograms, and not on 80,000.

The American brig Florence J. Henderson arrived in Aguadilla in November from New York with 5,125 sugar shooks and heads, part for that port and part for this, the manifest for which was made for some 90,000 kilograms less than the actual weight.

The vessel was fined in conformity with the new tariff about $550 in Aguadilla, and would have been subjected to the same fine here, making a total of $1,100 which the master would have had to pay.

In both cases I took the proper steps to intercede with the government for the remission of these fines, guaranteeing the honesty and non-intent of fraud of the parties interested, and that the mistakes occurred solely from negligence or ignorance on the part of those who made up the manifests for the masters.

The data were placed in the hands of Consul Conroy at St. John's, and it is owing solely to his zeal and tact that the government consented to release those vessels from the penalty, the fine on the Ruth Darling having been waived altogether, and that of the Henderson reduced to $50.

GORHAM E. HUBBARD,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Mayaguez, December 31, 1881.

9 FEB

E.—*Comparative table of duties for Porto Rico.*

[In Mexican silver dollars.]

Articles.	Foreign flags.			Present duties under Spanish flag.	Difference in duties in favor of Spanish flag.
	Former tariff.	Present tariff.	Difference between former and present tariff.		
Flour ..... barrel..	$3 58	$3 47	— $0 11	$2 61	$0 86
Rice ..... 100 pounds gross..	1 47	1 31	— 16	91	40
Lard ..... do....	3 24	3 05	— 19	2 13	92
Hams ..... do....	3 92	3 20	— 72	2 20	1 00
Pork ..... barrel..	3 97	7 08	+ 3 11	4 88	2 20
Butter ..... 100 pounds gross..	4 14	5 68	+ 1 54	3 95	2 73
Pilot bread ..... do....	1 96	1 86	— 10	1 29	57
Crackers and biscuits ..... do....	2 46	7 40	+ 4 94	4 84	2 46
Corn meal ..... barrel..	1 19	1 16	— 03	69	47
Onions ..... 100 pounds gross..	65	44	— 21	31	13
Potatoes ..... do....	39	44	+ 05	31	13
Beans and pease ..... do....	97	91	— 06	63	28
Oats ..... do....	48	58	+ 10	40	18
Candles ..... do....	3 92	2 84	— 1 08	1 97	87
Soap ..... do....	2 94	2 80	— 14	1 93	87
Kerosene ..... gallon..	22	16	— 06	11	05
Cheese ..... 100 pounds..	3 11	4 41	+ 1 30	2 94	1 47
Wrapping paper ..... ream..	13	09½	— 04½	06⅝	02⅞
Grindstones ..... each..	38	2 25	+ 1 87	1 57	68
Sugar shooks ..... 1 bundle and 1 pair heads..	26	35	+ 09	26	09
Molasses shooks ..... do....	26	30	+ 04	22	08
Hoops ..... thousand..	6 62	1 45	— 5 18	1 06	38
Codfish and other dried fish ..... 100 pounds..	79	1 00	+ 21	74	26
Mackerel ..... barrel..	1 06	1 14	+ 08	85	29
Herrings ..... do....	79	1 14	+ 35	85	29
Lumber ..... pitch pine, per M feet..	5 30	5 04	— 24	3 80	1 24
Lumber ..... white pine, per M feet..	3 97	4 96	+ 99	3 72	1 24
Shingles ..... thousand..	1 32	2 48	+ 1 16	1 70	78
Leaf tobacco ..... 100 pounds..	4 77	6 37	+ 1 60	6 37	.....
Manufactured tobacco ..... 100 pounds..	5 58	53 16	+ 47 58	53 16	.....

GORHAM E. HUBBARD,
United States Commercial Agent.

DUTIES AND PORT CHARGES AT GIBRALTAR.

REPORT BY CONSUL SPRAGUE.

DUTY ON WINES.

On every imperial gallon introduced into the garrison and territory otherwise than in regular wine bottles, 0.31¼ pesetas.

On all wines in bottles introduced into the garrison and territory, being in regular wine bottles, per dozen, 1.25 pesetas.

Wines deposited in the Queen's stores, and afterward exported from the same, are not liable to the above duty.

DUTY ON SPIRITS, STRONG WATERS, AND CORDIALS.

In every gallon being of the strength of proof by Sykes's hydrometer, and so in proportion for any greater strength than the strength of proof, and for any greater quantity than a gallon, $1.

WHARFAGE TOLLS.

On all wines, spirits, strong waters, cordials, and other liquids in casks landed at Gibraltar, whether in bottles or otherwise, if the full contents of the cask shall exceed ten gallons—

	£	s.	d.
On every botasso	0	2	2
On every pipe or butt	0	1	10
On every hogshead	0	0	11
On every tierce	0	0	7½
On every quarter cask	0	0	5½
On every cask less than a quarter cask, being liable to wharfage toll	0	0	3

On all *tobacco* landed at Gibraltar, being in hogsheads or kegs, as commonly imported from the United States of America, or being in rolls, as commonly imported from the Brazils—

	£	s.	d.
For every hogshead	0	1	10
For every keg or roll, not exceeding 1¼ cwt	0	0	2
For every keg weighing more than 1¼ cwt., but not exceeding 2 cwt	0	0	3
For every roll weighing more than 2¼ cwt., but not exceeding 5 cwt	0	0	7

PORT CHARGES.

Vessels of—

	Pesetas.
1 to 20 tons	10
21 to 50 tons	50
51 to 100 tons	20
101 to 150 tons	30
151 to 200 tons	35
201 to 250 tons	40
251 to 300 tons	45
301 to 400 tons	50
401 to 500 tons	55
501 to 600 tons	60
601 to 800 tons	65
801 and upwards	70

HORATIO J. SPRAGUE,
Consul.

UNITED STATES CONSULATE,
Gibraltar, January 13, 1882.

RECENT CUSTOMS DECREES IN UNITED STATES OF COLOMBIA.

TRANSMITTED BY CONSUL SMITH, OF CARTHAGENA.

I have the honor to transmit herewith copies, with translations, of important decrees recently issued by the Government of Colombia making material amendments and modifications in the customs tariff relative to free entry of food supplies destined for consumption in those States of the republic that are invaded by the locusts; and also free entry of materials and supplies of whatever nature that are to be used in the construction and development of public works and enterprises.

Before such supplies can be declared free of duty, certain preliminary forms must be attended to; and I would suggest that it is of interest to our commerce to be made aware of the existence of said decrees at an early date.

EDMUND W. P. SMITH,
Consul.

UNITED STATES CONSULATE,
Carthagena, Colombia, December 31, 1881.

[Translation.]

Law 38 *of* 1881 (*30th of May*), *declaring several articles free of import duty.*

The Congress of the United States of Colombia decrees:

ART. 1. All implements as well as all articles necessary for the construction of telegraph lines and railroads already put into work, or any that may, in the future, be constructed in any part of the Territory of the Union; also the materials and instruments imported with destination to the iron-works of Samacá and Subachoque, and in general all machinery and other articles necessary for the realization of any public work in whatever State of the Union, are by this law declared free of import duty.

In the exemption of the duties expressed in the foregoing article there are also included provisions and drugs of necessity for enterprises for the use of workmen and laborers of whatever works of fomentation, when the construction of said works shall take place in desert or unhealthy districts, which, in the opinion of the national executive power, should require the grant, previous to the statement of the State government where the work is to be carried out.

ART. 2. There shall also be comprised in the exemption granted by the preceding article all necessary articles of food, which, in the judgment of the executive power, be indispensable and be imported for the consumption of the poor class in the locust districts.

This exemption shall commence and end in each locality at such period as shall be determined by the executive power.

Given at Bogotá, on the 28th day of May, in the year 1881.

The president of the senate of plenipotentiaries, BELISARIO KAMORANO.

The president of the chamber of representatives, BERNARDO CUILLAR.

The secretary of the senate of plenipotentiaries, BENJAMIN PEREIRA, G.

The secretary of the chamber of representatives, CARLOS COTY.

National executive power, Bogotá, 30th of May, 1881.

Let it be published and performed.

The President of the Union, RAFAEL NUNEZ.

The secretary of finances. ANTONIO ROLDAN.

[Translation.]

Decree No. 362 *of* 1881 (*7th of June*), *in execution of the law* 38 *of the same year* (*"Diario Oficial,"* 5036) *and amending that of No.* 685 *of* 1880 (*"Diario Oficial"* 4, 789).

The President of the United States of Colombia, by virtue of his legal functions, decrees:

ARTICLE 1. In order that all merchandise referred to in the first paragraph of article 1° of law 38 may be judged free of import duty, the company, employé, or individual having a legal right to represent the work in reference is obliged to give the information which article 135 of the fiscal code requires, through the President of the State, or governor of the same, who shall transmit it to the department of fomentation of the nation, along with the documents or report stipulated in article 2 of this decree, in order that the department may examine and determine the necessity of the goods destined for the work, and communicate the result of said examination to the department of the treasury, transmitting at the same time the documents, so that in view thereof the latter may give the order to the custom-house through which the said goods are to be imported as to what resolution has been decided upon relative to the exemption of the impost.

Said information should be given "precisely" before the important introduction of the goods in accordance with the said-mentioned article 135.

ART. 2. In addition to the above-mentioned information, the legal representative of the work must send the following:

1st. The invoice enumerating the goods to be imported; specification of the number of packages in which same are to be contained; the mark or brand; the numeration.

the port of shipment, and the agent appointed to receive the same at the custom-house.

2d. Copy of the estimate of the materials wanted for the work.

3d. Authentic report as to the number of laborers ordinarily employed in the same.

4th. Certificate of the national collector of the revenue, of the mayor, and of the agent of the attorney-generalship in the place, as well as the prefect of the department, if there be any, as to the accuracy of the statements made in the other documents, the actual condition of the work, extension, and other pertinent subjects, in order to judge with exactness whether the goods stipulated in the invoice are of necessity for the work.

The brand on the packages must be the name of the work to which the goods are destined.

ART. 3. The estimates, invoice, and note of the number of laborers must be signed by the representative of the work, the respective engineer, and by all the members of the directive board of the enterprise, if there be any.

ART. 4. In his character of constitutional agent of the national executive power, the President or governor of the State must examine said papers, and is to express his opinion in writing on the subject, and must send them to the department of fomentation, where they shall be filed if found correct. If they should be incomplete or incorrect, however, the defect must be remedied before filing them.

ART. 5. Both the above-mentioned department of state and the presidents or governors may demand besides said data, others, which, in their judgment, may be deemed indispensable to make clear any points in the despatch of the business referred to.

ART. 6. To determine the necessity of the goods spoken of in this decree, the following must be taken into consideration, viz: the class, quality, number or quantity, application and other circumstances peculiar to them; as also the nature of the work, its condition, the number of its employés, and laborers, and the previous importation of the same for same purposes, and, in general, all that may separately and collectively contribute to make clear the subject. Consequently there shall not be comprised among said goods, house furniture, writing materials, drugs, food supplies, wearing apparel for the laborers, or, in general, any objects that are not directly applicable to the work; nor shall the exemption be extended to quantities in excess of the wants of the enterprise at the time the importation is to take place.

ART. 7. For the effect of the final part of the first paragraph of article 1 of said law 38, it is understood by public works those that are the property of the people, though performed by means of contracts, in conformity of the resolution issued by the department of the treasury on the 30th of January, 1880, and published in No. 4613 of the Diario Oficial.

ART. 8. Whenever the materials referred to in this decree are not, according to the evidence, those exclusively and particularly applicable to any of the works spoken of in the law, such as rails, locomotives, or the like, the collector of customs in the port will exact from the importer a bond capable of giving security for the payment of the duties, with interest for delay, if within a reasonable time it cannot be proved by a certificate from the department of fomentation, given in consideration that by the evidence adduced the materials introduced have really been applied for the works.

ART. 9. Should exemption from duties on provisions and drugs necessary to the employés and laborers in any work in course of construction be solicited in the contingencies of the paragraph of the article 1 of said law, the se-mentioned documents in article 20 shall be accompanied by a certificate, signed by three prominent physicians, designated by the President or governor of the State, relative to the unhealthy situation of the spot where the works are located; and also an additional certificate of those functionaries mentioned in the point 4 of the same article, as the want of inhabitants and lack of resources of the place in reference.

ART. 10. For the effects of article 2 of the said law 38, there shall be declared free of import duty, besides the food supplies comprised in the tariff of the first class wheat and barley, the flour made therefrom, sago, beef and lard destined for consumption in the States of Bolivar and Magdalena, that are now invaded by the locusts.

Whenever this plague may cease in said States, or shall invade others, the executive power, in accordance with said law, will resolve what it may deem proper in the premises.

It shall be deemed contraband goods, all food supplies that having been declared free of duty in compliance with this article, are taken out of the above-mentioned states.

ART. 11. What is expressed in the articles hereinbefore mentioned in this decree does not except the fulfillment of the common formalities on importation, which, under any circumstances, are invariably to be observed, and among them are the presentation, in due time, of the certified invoices by the consul at the port from where the

goods are shipped, and also those relative to the examination of the latter in that case, following the proceedings marked in articles 122 and 123 of the fiscal code.

ART. 12. The goods comprised under the said law 38, being at the same time those especially mentioned in the customs tariff as first class, and that according to the nature or peculiarities of the same can be applied only to the object determined in the same tariff, such as iron in a rough state, machinery for the opening of canals, and the sleepers for railroads, do not require to undergo the proceedings mentioned in this decree for their free importation.

ART. 13. The importations made for the Cucuta and San Buenaventura railroad referred to in law 15 of last year, shall also undergo the same formalities prescribed in this decree.

Given at Bogotá on 17th June, 1881.

RAFAEL NUNEZ,

The secretary of the treasury.

ANTONIO ROLDAN.

[Translation.]

Decree 610 *of* 1881 (*17th of August*), *additional to same number* 362 *of the year in course.* (*Diario Oficial No.* 5041.)

The President of the United States of Colombia decrees:

For the effect of article 2 of the law 38 of the present year, are declared free of import duty, besides all the food supplies stipulated in article 10, and the following of the decree number 362 issued in its execution, the importation of codfish, meat in pickle, vermicelli and similar paste, brown sugar, molasses, and common and refined sugar, that are destined for consumption in the States of Bolivar and Magdalena, which are invaded by the locust plague.

The article in reference is by these terms thus amended.

Given at Bogota on the 17th of August, 1881.

RAFÆL NUNEZ.

The secretary of the treasury,

ANTONIO ROLDAN.

[Translation.]

Decree No. 805 *of* 1881 (*18th of October*), *which exempts from import duty the State of Santander of those articles granted by law to those populations that are afflicted by the locust plague.*

The President of the United States of Colombia, in the performance of article 3 of the law 38 of present year, decrees:

The resolutions on exemption of import duty that in favor of several districts invaded by the locust swarms are contained in decrees numbers 362, 610, and 787 of the present year (see Dario Oficial Nos. 3041, 3061, and 3195), are extended to the State of Santander, where the locust swarms have appeared.

Given at Bogota the 10th day of October, 1881.

RAFAEL NUNEZ.

The secretary of the hacienda.

ANTONIO ROLDAN.

[Translation.]

UNITED STATES OF COLOMBIA, NATIONAL EXECUTIVE POWER, OFFICE OF THE SECRETARY OF THE TREASURY, SECTION 2, CUSTOM-HOUSE DEPARTMENT No. 10494.

BOGOTA, *November* 6, 1881.

To the Collector of Customs at Carthagena:

The national executive power has issued the following decree numbered 848 of 1881, additional and amendatory to those of numbers 362, 610, 805 of the same year. (See Diario Oficial, numbers 5041, 5106, and 5164.)

The President of the United States of Colombia, by virtue of his legal faculties, decrees:

For the effects of article 2 of the law 38 of the present year are declared free of im-

port duty, besides all food supplies expressed under art. 10 and the following of the decrees. Numbers 610 and 805 issued in its execution, meat in salt brine that is destined for consumption in the States of Bolivar, Magdalena, and Santander, which are invaded by the locusts.

Given at Bogota the 8th day of November, 1881.

RAFAEL NUNEZ.

The secretary of the treasury,

ANTONIO ROLDAN.

Which I transcribe to you in order you may see it carried into execution.

I am your obedient servant,

ANTONIO ROLDAN.

The collector of customs:

MIGUEL A. VIVES.

TRADE AND COMMERCE OF SIAM.

REPORT BY CONSUL-GENERAL HALDERMAN, OF BANGKOK.

Siam and dependencies have an estimated population of 8,000,000 souls, and an area of 200,000 square miles. Bangkok, the capital city, is distant from Singapore 850 miles, and from Hong-Kong 1,550 miles, with each of which it has fortnightly steam service each way. The city has an estimated population of 500,000, and is the port of entry for the entire kingdom.

The figures in the imports strike a note of warning when they exhibit *opium*, with a single exception at the head of the list in value, while *liquors* stand next.

Of opium as a demoralizing drug I need not speak, but of these liquors, it may be observed that they are not the wines of sunny France, nor the the amber drink of the Teuton, nor yet the insinuating "mountain dews" of Pennsylvania and Kentucky, but a vile decoction from China called Samshu, compared to which benzine would be nectar.

There is an ad valorem duty of 3 per cent. on all imports, except opium, which is admitted free, to be sold only to the opium farmer.

In exports, rice is first, being more than one half of the whole, and fish is next, while together they represent in value two-thirds of the entire list.

The tariff of export duties is fixed by treaty, and is not oppressively high.

The bulk of the trade of Siam pays tribute by transshipment in China and Java, and at Hong-Kong and Singapore. There is little direct trade with Europe, and less with the United States. The records of this consulate show that there has been but one direct shipment of merchandise to the United States within the last four years, and within that period there has been but one entry of the American flag. Some few of our commodities, notably kerosene oil, flour, canned goods, buggies, pumps, weighing-scales, firearms, sewing-machines, clocks, and cotton goods, find their way, through other markets and in bottoms other than American, into Siam, where they give general satisfaction. Larger consignments might be profitably made.

Trade with the United States might be materially increased by the establishment here of a trustworthy American mercantile house, with capital and good connections. Such an establishment, in my judgment, if judiciously managed, could not fail of success.

Rice is the staple product of Siam, and to transport this to the United States while Carolina and the rice districts of the South produce a su-

perior article, would be, omitting exceptional cases, like carrying coals to Newcastle. Without a large influx of Mongolians in our own country, a material increase of the rice consumption may not reasonably be expected in the immediate future.

The two streams of civilization which started from Plymouth Rock and Jamestown, though dissimilar in many respects, like that sturdy stock of Northern Europe, from whose loins they sprung, have a common ambition to eat beef and *rule*, rather than to eat rice and *serve*.

Pepper, gums, dye-stuffs, cardamoms, fine wood, and ivory in small shipments, may be profitably exported to the United States in exchange for our goods and wares, which, as before noted, would find here ready sales at reasonable profit, with no prejudices to combat.

I should like to take the same rosy view of my country's commercial supremacy in Siam, predicated on the reciprocal exchange of productions, as have some of my predecessors, but until there is a better prospect of hope ripening into fruition I must submit to the stern logic of facts.

It will be remarked that the shipping list shows a decrease in number and tonnage along the entire line. During the year 1880 three American vessels were cleared at this port, all of which were entered in ballast.

Tonnage has been scarce, and as a consequence freights high.

In view of the fact that favorable charters may be generally obtained for small vessels, it is a matter of inquiry why our flag is not oftener seen in Siamese waters.

Within the last decade or two our country has leaped to the front as a producer, and of our abundance we are to-day sending surplus, under foreign flags, to every known port. May we not reasonably hope, while in the flush of young and vigorous manhood, that our country may, within a shorter period, augment its merchant marine, and successfully claim a leading position in the carrying trade of the world?

It were better to accomplish this by individual effort, but failing herein, it were statesmanship for government to give, to *give* freely, of its millions. Like bread cast upon the waters, such ventures would return after many days with marvelous increase.

JOHN A. HALDERMAN,
Consul.

UNITED STATES CONSULATE,
Bangkok, 1881.

THE TOWN AND HARBOR OF SAGUA LA GRANDE, CUBA.

REPORT BY COMMERCIAL-AGENT SWORDS.

HARBOR.

The harbor of Sagua la Grande, 14 miles from the town, is known as Isabella de Sagua, and is reached by railway and river. It has a population of about 500, mainly of the class employed among shipping.

Here are the wharves and warehouses from which vessels are loaded. The northeastern terminus of the through railway from Havana is here located. The harbor is a good one, sheltered from troublesome winds by a belt of keys, and providing safe anchorage for a hundred or more ves-

sels drawing not more than 16 feet of water, in excess of which the vessel must lie outside the harbor at anchor.

The health of the harbor is usually excellent, and yellow fever is only prevalent when brought from Havana by vessels changing port.

A schedule of port charges and expenses due from vessels of all nations is herewith forwarded, the same comprising all charges which are certified to as correct or just by the captain of the port and collector of customs, which schedule, I hope may be published, for the benefit of American shipmasters and owners, in the New York Maritime Register.

THE TOWN OF SAGUA.

The town of Sagua is situated on the northern coast line of the island about 200 miles northeast from Havana, 60 miles northeast from the city and port of Cienfuegos, with connection by rail with both of these cities. Its area is about 4 miles, its population 15,943, divided into white males, 5,969; white females, 4,179. Chinese males, 1,227; Chinese females, none. Negro males, 1,766; negro females, 2,002.

In estimated agricultural wealth it is probably third in rank in the island, many of the landed proprietors being non-residents. The health of the town is generally good, subject of course to such ills as are incident to a tropical climate, well drained by a natural position and a rapid river, but entirely devoid of practical sanitary regulations, save when threatened with an epidemic as at present.

There are but few industries employed here, save such as are imperatively demanded by actual requirements, such as a foundry, machine shop, two lumber yards and mills, a tannery, distillery, and works for the supplying of gas. The educational resources are limited, the teachers of the municipal schools, although earnest in their efforts to instruct, are poorly compensated, and have been without pay for a period of over ten months, owing to the inability of the municipal government to collect the taxes due, and unpaid by reason of the inability of the population to pay.

The debt of the town is at present $100,000, with but little future prospect of liquidation, as it has been steadily increasing for some years, the late insurrection causing losses by pillage and fire, no revenue accruing other than that due to and exacted by the home government, which is taken to swell the coffers of the Peninsula, or to pay the interest on loans made to the mother country by foreign governments.

FUTURE BENEFITS.

I can see no future benefit which may accrue to the United States, save by a more extended introduction of labor-saving machinery and agricultural implements. Were the discriminating tariff now in force modified to permit American manufactures and food products to compete with those of Spain and England, or the heavy export duty of five dollars per hogshead of sugar abolished, the United States might, by a treaty of reciprocity, have the opportunity to pay for the $58,000,000 worth of sugar and tobacco consumed within her own territory, by an exchange of the common necessaries of life needed by a people whose sole reliance is upon profits derived from products of sugar and tobacco, both of which are now antagonized by the promise of equal production within American territory.

The progress made in the United States of late in the manufacture of sugar from beet-root and sorghum is watched with evident interest,

the published accounts are read with avidity, and arguments advanced against the possibility of the United States ever being able to produce even enough for home consumption. Yet a glance into the past warns them of the loss of their neighbor and largest consumer, as in continental Europe, and the shadow of this probability creates a feeling of unrest and a desire for closer commercial relations before it is too late. This feeling, with an increase of liberality, and the education derived from years of severe trials and reverses, may arrest the downward course of this island, whose future, in my humble opinion, rests in the hands of others than those now having control and holding the reins of government.

JOSEPH F. SWORDS,
Commercial Agent.

U: S. COMMERCIAL AGENCY,
Sagua La Grande, Cuba, 1881.

PORT CHARGES AT SAGUA LA GRANDE.

CUSTOM-HOUSE TARIFF.

Entry of vessel, including stamped paper	$0 50
Opening register, including stamped paper	50
Transfer from one consignee to another	50
Clearing vessel, including stamped paper	50
Sealed clearance or sea-letter, including stamped paper	7 50
Government interpreter's fee	4 00
Total of justifiable charges, excepting tonnage dues	13 50

TONNAGE DUES.

(Registered tonnage.)

Arriving with cargo and clearing with cargo, per ton	$1 35
Arriving with cargo and clearing with ballast, per ton	1 30
Arriving in ballast and clearing with cargo, per ton	1 00
Arriving with coal, equal to or exceeding registered tonnage, even if laden with other cargo	Free.
Arriving with coal only, but in less quantity than registered tonnage, for every ton so occupied	Free.
Arriving, but for every ton not so occupied	62
Arriving with coal in less quantity than their registered tonnage, and laden with other cargo, for every ton occupied by coal	73
Arriving, but for every ton not occupied by coal	1 35
Arriving in ballast, clearing with full cargo of molasses	37
Arriving in ballast, clearing with produce or other cargo	1 00
Arriving, and for every ton empty or in ballast	05
Arriving and clearing in ballast	05
Arriving in distress or for orders	05

TARIFF OF PILOTAGE, PER TON REGISTERED.

Movements.	Under 80 tons.	80 to 150 tons.	150 to 200 tons.	200 to 300 tons.	300 to 400 tons.	Upwards of 400 tons.
Entering port by Marillanes	$10 00	$12 00	$14 00	$16 00	$18 00	$21 00
Entering port by Boca de Sagua	12 00	14 00	16 00	18 00	21 00	24 00
Leaving port by Marillanes	10 00	12 00	14 00	16 00	18 00	21 00
Leaving port by Boca de Sagua	12 00	14 00	16 00	18 00	21 00	24 00
Going to wharf from anchorage	4 16	5 00	5 83	6 66	7 50	8 75
Leaving wharf going to anchorage	2 50	3 00	3 50	4 00	4 50	5 25
Changing from wharf to other	4 16	5 00	5 83	6 66	7 50	8 75
Changing anchorage in bay	2 50	3 00	3 50	4 00	4 50	5 25
Changing position at wharf	1 66	2 00	2 34	2 67	3 00	3 50

EXTRA PILOTAGE FOR SPECIAL MOVEMENTS.

Movements.	Under 80 tons.	80 to 150 tons.	150 to 200 tons.	200 to 300 tons.	300 to 400 tons.	Upwards of 400 tons.
To Cayo Christo, leaving port	6 66	8 00	9 32	10 66	12 00	14 00
To outside points, leaving port	3 33	4 00	4 66	5 33	6 00	7 00
To Boca de Sagua	10 00	12 00	14 00	16 00	18 00	21 00
To Bamba, Punto Gordo, Carrahatas	6 66	8 00	9 32	10 66	12 00	14 00
To Minister's Turn in Sagua River	10 00	12 00	14 00	16 00	18 00	21 00
To Chorrera de Canos	15 00	18 00	21 00	24 00	27 00	31 50

NOTE.—When a vessel desires a pilot outside of the Bocas de Sagua and Marillanes, if to the windward, they must pay $1 per mile; if to the leeward, $2 per mile. When a pilot remains on board a vessel, save by reason of bad weather or contrary winds preventing the vessel from going to sea, per day, $4.

When a vessel runs aground and the pilot remains on board by request of the captain or consignee, per day, $4; vessels discharging ballast at wharf, per day, $1.50; vessels discharging ballast in the bay, per day, $2; vessels discharging or loading brick, sand, tiles, or equivalent effects, which require the presence of a ballast-master, will pay one-half of the foregoing amounts.

MERCHANTS' CHARGES.

Chartering commission, 5 per cent.; disbursing and advancing, 2½ per cent.; drawing, 5 per cent.; wharfage, per 100 tons, $1.25 per day; lighterage, steam towage, stevedoring, &c., subject to charter party and master's negotiations. No war tax.

NOTE.—In addition to the amount of $7.50 in the custom-house charges, the merchant charges $2.13 as a "gratuity" given to the clearing officer for prompt dispatch, and in addition the sum of $1.50 as paid for stamped paper, upon which two items the 2½ per cent. is charged for moneys disbursed on account of vessel. Neither the collector of customs nor captain of port has favored me with other than the "tables herewith furnished as the true charges authorized by law," and I am consequently of the opinion that all other charges appearing upon disbursement bills of vessels loading at this port are irregular and unwarranted.

LABOR AND WAGES IN CUBA.

REPORT BY COMMERCIAL AGENT SWORDS, OF SAGUA LA GRANDE.

Free laborers receive, at present, from $25 to $30 per month, gold, for field work, and $17 per month as house servants. Chinese laborers, who formerly enjoyed no rights save that of being persecuted beyond the limits of refined cruelty, are now enjoying rights co-equal with those of the most favored nation, and are giving evidence of their superiority over their negro competitors as agriculturists.

Nearly every plantation, warehouse, and shop employs one or more Chinamen. They are the fruit and vegetable growers; they endure the heat of the climate equally as well as the negro, do as much work, more consecutively and faithfully. That they will eventually be the sole reliable field-laborers of the island is conceded by intelligent observers, who accept the possibility of a change in the present law of emancipation which will remand the negro back to a condition of perpetual servitude.

CHINESE AS SUGAR-GROWERS.

A merchant planter gives me the benefit of his experience with Chinese as cultivators of the sugar cane. On one estate he has 40 China-

men who took entire charge one year ago. They prepared the ground, planted the cane, subsisted themselves, asked no money advance whatever, and are to-day producing more sugar, and of a better class, than upon another plantation hereafter referred to. For their services they receive, at the conclusion of the crop, the value of two out of every three hogsheads of sugar or molasses produced on the estate during the term of their contract.

On the other estate he employs 100 negro slave laborers, feeds, clothes, and pays them at from $3.25 to $4 per month, pays a first-class administrator $1,800 per annum to oversee the work, has advanced for the necessary disbursements of the estate $10,000, which is worth from 12 to 18 per cent. per annum, and estimates a saving profit of 50 per cent. in favor of the estate worked by the Chinese.

COST OF LIVING.

The cost of living, enhanced by excessive taxation, is very high, save among the laboring and extreme lower classes, the latter of whom live away from town in rude, thatched shelters, unworthy the name of houses, and manage to subsist upon the fruits which grow wild, varied with an occasional treat of pork, dried fish, and meat. On the plantations the laborers are generally well fed, the nature of the work requiring substantial food. The middle classes of the town are domiciled in close quarters, a view of which would drive a sanitarian crazy, and his efforts to reform would stamp him as of unsound mind in the opinion of the residents.

The climate in one sense fortunately assists the poorer classes to exist with little food and clothing, and slight compensation for services when needed; in another sense the climate with the surrounding evils assists them to court and breed an epidemic and its results, as at present, when threatened with an extended season of small-pox.

JOSEPH F. SWORDS,
Commercial Agent.

U. S. COMMERCIAL AGENCY,
Sagua La Grande, Cuba, 1881.

NOTES.

Corrections in the Cotton-Goods Trade of the World.—On page 62, immediately under the heading of the "Cotton-Goods Trade of Germany," the words "import of raw cotton" should read "import of cotton manufactures," which the figures given represent.

On page 73 the quantities of raw cotton imported into the United Kingdom during the year 1880 are given in *pounds;* they should be given in (*cwts.*) *hundred weight.*

Persons possessing copies of the above work will please make the foregoing corrections.

Vital Statistics of Vienna.—From a report by Consul-General Weaver we give the following extract:

The inclosed vital statistics of the city of Vienna for the years 1881 and 1880 may be of sufficient general interest to warrant their transmission and subsequent publication.

These data have been compiled from the weekly reports furnished to this consulate-general by the statistical bureau of the city of Vienna, from which the weekly sanitary reports have been furnished to the National Board of Health at Washington, D. C.

The population of that part of the city for which these statistics are given, viz, the ten bezirke, or districts, within the octroi lines, omitting the thirty-five suburbs with a population of 377,923, was estimated for 1881 at 730,911, including 20,703 military stationed in the city, the civil population being 710,208, based on the census of December 31, 1880, when the same was 705,402. The excess of births over the total deaths for 1881 was 7,552, but if strangers and those from the suburbs be omitted, the excess becomes 10,357, and the death rate falls from 29 to 25.1 per thousand.

About 40 per cent. of the total deaths occur in the twenty-seven public hospitals of the city, of which two are military. The table does not include the 438 deaths caused by the burning of the Ring Theater, December 8, 1881, of whom only 284 bodies were recovered, and of these only 145 could be recognized.

The following table gives the various data for 1880 and 1881 as follows:

Data.	1881.	1880.
Marriages	5,826	5,553
Births:		
Males, legitimate	8,032	8,176
Females, legitimate	7,589	7,714
Males, illegitimate	6,746	6,550
Females, illegitimate	6,330	6,150
Total living births	28,697	28,590
Total still births, legitimate	744	761
Total still births, illegitimate	640	581
Total births	30,081	29,932
Total deaths (still births not included)	21,145	20,326
Under one year of age	5,362	5,427
From one to five years	2,863	2,755
Small-pox	895	528
Measles	106	102
Scarlet fever	286	174
Diphtheria	381	456
Whooping-cough	99	146
Typhoid fever	149	171
Typhus fever	20	.....
Diseases of the brain	1,328	2,246
Diseases of the respiratory organs	5,086	4,901
Diseases of the blood-vessels	926	868
Diseases of the stomach and intestines	1,440	1,638
Deaths of strangers from suburbs	2,805	2,592
Deaths of residents of the city	18,340	17,734
Total deaths	21,145	20,326
Population	730,911	723,402
Death rate per thousand	29	28
Death rate, omitting strangers	25.1	24.5

Quicksilver at Mazatlan, Mexico.—Under date of January 17, 1882, Consul Kelton furnishes the following information concerning quicksilver in his consular district:

The demand for quicksilver in this consular district is supplied by the State of California, and amounts annually to about 6,000 flasks, which are employed only in the reduction of silver and gold ores.

The average price in this market is 50 cents per pound, and the stock in hands of dealers, January 1, was about 1,000 flasks.

It is more than probable that the consumption of quicksilver will increase in this district from the fact that mining operations are being greatly extended, and consequently larger amounts of ore will be reduced.

Quicksilver in Great Britain.—Consul-General Merritt, of London, in answer to a circular from the Department of State, furnishes the following information concerning quicksilver in Great Britain:

On the 31st of December, 1881, the stock in warehouse was 88,164 flasks, each flask weighing net say 75 lbs. About 71,000 of this quantity was held in second hands, and the remainder by Messrs. Rothschild & Sons, the well-known banking firm of this city, who practically rule the market in this article. Of this quantity 5,713 flasks were received on the 31st ultimo. The present price is £6 5*s.* per flask (the lowest quotation during 1881; the highest was £7 during that year). About 28,000 flasks are usually exported per annum, and 12,000 are used for home consumption. It is largely used here in the manufacture of Vermillion; also for medicinal purposes and in the preparation of ointments; it is also used for looking-glasses, but I am told this branch of trade does not in this city use it in any large quantity.

I am under obligations to Messrs. Rothschild for much of the foregoing data, which has been verified by inquiries made in other equally reliable quarters. In this connection it seems to me proper to add that when quoted the price is known by the brokers as the "Baron's price," and it is even asserted as the opinion of some that the present low price is kept in order to keep all competitors out of the market.

Italian Paper Currency.—Consul Rice, of Leghorn, under date of October 30, 1881, writes as follows concerning the paper currency of Italy:

BILLS OF EXCHANGE.

During the past three months little has attracted attention under this head. The provisions of the loan effected by Signor Magliani, the Italian minister of finance, to provide for the abolition of the paper currency have been carried out by the firms of Messrs. Baring Brothers & Co., and Messrs, Hambro, of London, and of the twenty-six millions sterling constituting the loan, about five or six millions have already been delivered. Meanwhile paper remains current and the silver disappears as soon as it leaves the pay offices.

A commission is in session to discuss the best method of retiring the existing one-half, one, and two franc notes and replacing them by copper and silver coins, and the Italian journals gravely announce that by the end of the year silver will be really current.

Meanwhile exchange bills on London have not fluctuated much, taking the following prices: 25.33, 25.52, 25.48, 25.64, 25.40, 25.60; yet a premium of 2 per cent. has maintained itself, and rather than decreasing appears at the moment of writing to be on the increase.

The Phylloxera in Italy.—Consul Rice, of Leghorn, gives the following interesting statistics concerning the phylloxera in Italy:

The official report ending September, 1881, gives the surface of ground examined by the commission on phylloxera, to amount to a superficies of 13,042,010 square meters, distributed as follows:

	Square meters.
At Valmadreda-Civate	3,790,483
At Agrate-Brianza	6,187,631
At Porto Maurizio	1,234,105
At Messina	609,608
At Riesi	1,219,883

The surface recognized as infected, comprised 1,027 square meters in the first of the above-mentioned districts, 1,768 in the second, 6 in the third, 62,517 in the fourth, and 568,445 in the last.

The following figures show the number of vines examined in the above-mentioned territory, and the number found touched:

	Examined.	Found infected.
Valmadreda-Civate	309, 292	172
Agrate-Brianza	70, 180	None.
Porto Maurizio	611, 041	6
Messina	564, 076	15, 652
Riesi	638, 861	60, 108

A total of 2,228,450 were examined and 76,056 were found to be infected.

In the districts of Agrate-Brianza, Porto Maurizio, Piani, Poggi, and Castelvecchio, the examinations are in full force, but are producing no new discoveries.

Imports from the United States at Bremen.—The following table, prepared by Consul Grinnell, shows the value of the principal articles imported by the United States into Bremen during the years 1879 and 1880:

Articles.	1879.	1880.	Increase.	Decrease.
Cotton*	$15, 966, 866	$20, 463, 976	$4, 497, 110	.....
Oil	8, 135, 900	8, 043, 158	.....	$92, 742
Lard	2, 685, 380	3, 653, 121	967, 741	.....
Tobacco	3, 498, 293	3, 551, 594	53, 301	.....
Indian corn	1, 234, 900	2, 642, 116	1, 407, 216	.....
Bacon	1, 264, 980	964, 920	.....	300, 060
Furs	639, 764	702, 864	63, 100	.....
Rye	498, 546	662, 342	163, 796	.....
Wheat	479, 961	659, 107	179, 146	.....
Lumber	269, 578	231, 828	.....	37, 750
Clover-seed	228, 428	220, 535	.....	7, 893
Butter	424, 526	155, 515	.....	269, 011
Fruits, dried and fresh	61, 527	122, 523	60, 996	.....
Animals (hogs, &c.)	15	92, 200	92, 185	.....
Wine	1, 321	75, 957	74, 636	.....
Machines	151, 237	70, 147	.....	81, 090
Total	35, 541, 222	42, 311, 903	7, 559, 227	788, 546

*East Indian and Egyptian cotton, to the value of about $1,000,000, was also imported during each of the above years, according to Consul Grinnell's estimate.

The American Flag on the Mediterranean.—Consul Rice, of Leghorn, in his report for the quarter ending September 30, 1881, writes concerning the absence of the American flag from that port:

It is with deep regret I am forced to inform you of the fact that another quarter has expired without my being able to note the arrival or departure of a merchant vessel bearing the American flag, thus making three consecutive quarters during which our flag has not been seen flying in the port of Leghorn, except on board of our men-of-war during their occasional visits to protect a commerce which does not exist, and I predict that within the space of two years, unless Congress comes to the relief of American ship-builders and ship-owners, our Navy will comprise the only ships which help read our renown to the outside world.

I read with much pleasure the able and masterly report of my colleague, Hon. William L. Scruggs, consul at Canton, published in the consular reports, under date of April 2, 1881, referring to the present state of our merchant marine, and what he states of Chinese waters is equally true with regard to those of the Mediterranean, and the universal cry is, cannot something be done to restore our carrying trade.

I beg leave to draw your attention to the following number of foreign vessels, which have cleared from this port for ports in the United States during nine months ending September 30, 1881:

Quarters.	Steamers.	Sailing vessels.	Value of cargo.
First quarter 1881	28	7	$244,292 95
Second quarter 1881	27	8	287,077 08
Third quarter 1881	35	8	464,941 23
Total	90	23	996,310 26

Making a total of 90 steamers and 23 sailing vessels, carrying cargoes from this port (not including shipments from Florence, Rome, and Carrara, which would nearly double it) amounting to the gross sum of $996,310.26.

It is true that the exports from this port to the United States have largely increased within the last few years, and circumstances have occurred which have driven our ships from the position of being able to compete for the carrying trade of even our own country. But it must be within the power of legislation to restore to the American ship-owner his old standing, and if he has *that*, his energy and hard practical sense will do the rest; but it is sad to every true American to see all our carrying trade absorbed by vessels belonging to other nations.

Consumption of Beer in Italy.—Under date of January 19, Consul Crain, of Milan, furnishes the following statistics concerning the consumption of beer in Italy:

In my report last April I stated that the consumption of beer was increasing in Italy by reason of the enhanced prices of wine and the growing popularity of beer as a beverage among Italians. As but a very small quantity of this article is made in the country its importation is constantly augmented to meet the demand.

This is evident from the statistics obtained at the railway custom-house station of Udini (on the northeastern frontier) embodied in the subjoined table, and which include only the supply from Austria.

Destination.	Kinds.					Total for 1881.
	Schriner & Sons, Gratz.	Anonymous Company, Liesing.	Dreher, Vienna, Trieste.	Rein, Brutius, Steinfeld.	Holt, Puntigam.	
	Barrels.	*Barrels.*	*Barrels.*	*Barrels.*	*Barrels.*	*Barrels.*
Ancona				530		530
Bologna	4,921	1,597	2,410			8,928
Brescia	459					459
Ferrara	170					170
Florence	898	255	525			1,678
Genoa	2,803	3,345		1,688		7,836
Legnano		4,086				4,086
Leghorn	478					478
Milan	12,903	5,504	6,784	5,003	800	30,924
Naples		100	1,562			1,662
Novara			590			590
Padua		1,568	2,320	160		4,048
P. Maurizio	601	70				671
Rome	1,614	1,124	1,182			3,920
Rovigo		175				175
Turin		2,785	1,590			4,375
Udine	15,004	3,244	1,938	2,258	2,879	25,323
Venice	1,943	874		226	4,771	7,814
Ventimiglia	10,508	1,811	180			12,499
Verona	456				256	712
Total	52,818	26,538	19,031	9,865	8,706	116,958
Total number of barrels passed at same custom-house in 1880						97,973
Number of barrels passed in 1881 in excess of 1880						18,985

It should be noted that the quantity assigned above to Udine does not represent the consumption at that place, which by reason of its situation on the frontier is a depot of distribution to places in its neighborhood not mentioned in the table.

Exports from Russia to the United States.—Below will be found a statement prepared by Consul-General Stanton, of St. Petersburg, of the value of the declared exports from Russia to the United States during the year ending September 30, 1881.

	Total value.
Bristles	$179,734 78
Bronzes	899 28
Camel-hair	81,185 19
Cement	184 64
Cigarettes	613 99
Cotton, Russian	157 50
Crash, canvas, duck	144,977 96
Drugs and druggist seeds	19,926 86
Goat-skins	8,680 49
Horse-hair	47,522 05
Iron:	
Old rail	129,646 72
Ore	40,593 61
Sheet	206,876 88
Isinglass	12,504 00
Leather	3,099 91
Liquors	1,537 00
Mats	3,397 12
Miscellaneous	5,391 69
Music	216 47
Platina	11,750 01
Ropes, cordage	53,703 96
Rugs, Russian and Persian	450 44
Silver, manufactures of	822 85
Tow, flax, and hemp	119,224 39
Wool	1,681,800 71
Total in 1881	2,754,898 50
Total in 1880	4,210,359 28
Decrease	1,455,460 78

INDEX.

A.

Page.

Adulteration of food in Germany 223
Agriculture in Australia 250
in Great Britain 201
American coal tar pitch wanted 187
clover seed, warning against 184
inventions in Switzerland, protection to 177
provisions, imports of at Leith 171
trade with Winnipeg 169
vs. German petroleum 183
flag on the Mediterranean 311
Art exports from Florence 214
Australasia: fisheries of 256
frozen-meat trade of 259
navigation of 261
public debt of 262
commerce and products of 250
Austro-Hungarian budget 288
Austro-Hungarian grain exports and imports 285
Austria: savings banks in 282

B.

Banks, savings, in Austria 282
Beer in Italy: consumption of 312
Beet (sugar) culture in Germany 260
Beet-sugar factories in Brunswick 247
Bombay: cotton frauds legislation 268
Bordeaux: tartar trade of 212
wine trade of for 1881 211
Bremen: imports from United States at 311
Bremerhaven: port dues and charges 191
Bronze powder and leaf-metal manufacture in Germany 185
Budget: Austro-Hungarian 288

C.

Canada and the United States: trade between 180
Census: German 193
Cheap German manufactures 187
Clover seed, American: warning against 184
Coal-tar pitch, American: wanted 187
Colombia: customs decrees 299
Commerce at La Paz, Mexico 266
and trade of Siam 303
in Australia 256
and products of Australasia 250

Page.
Commercial and political condition of Madagascar 220
Comparative table of ship building in England 198
Corrections in cotton-goods trade of the world 309
Cotton frauds legislation of Bombay 268
goods trade of the world: corrections 309
Crop: wine, of France for 1881 279
Cuba: harbor of Sagua la Grande 304
labor and wages at 307
Currency: Italian paper 310
Customs decrees of Colombia 299
Cultivation of rice in Japan 248
Culture and Reservation of forests 199
sugar beet, in Germany 280
(free) of tobacco in the Philippine Isles 282
of tobacco in the Gironde 282

D.

Decrees, customs, of Colombia 299
Dues and port charges at Bremerhaven 191
Duties and port charges at Gibraltar 298

E.

Emigration, German, to the United States 193
England: trade of Plymouth 267
ship-building in 195
English wool: encouraging manufactures of 209
European telegraphs 290
Exhibition, international, at Rome (proposed) 295
Exports and imports of metals, &c., across the Russian frontier 234
imports of grain, Austro-Hungarian 285
trade of Maracaibo 236
from Lyons to the United States 276
Mayaguez, Porto Rico, to the United States 176
art, from Florence 214
of Victorian manufactures 252
from Russia to the United States 313

F.

Fisheries, seal and whale, in Norway 293
in Australia 256
Flag, American, on the Mediterranean 311
Flour, imports of, to Great Britain 206
Florence: art exports from 214
Food adulteration in Germany 223
Forests of Russia in 1877 208
Forest culture and reservation 199
France, wine crop of, for 1881 279

G.

Geestemunde-Bremerhaven and the United States: trade between 181
German emigration to the United States 193
census 193

Page.
German *vs.* American petroleum 183
North Lloyd 190
manufactures, cheap 187
Germany: culture of sugar-beet 280
iron market of 246
trade and manufactures of 241
adulteration of food 223–229
bronze powder and leaf-metal manufacture 185
Gibraltar: duties and port charges 298
Gironde: tobacco culture in 282
Gold shipments, Australian, to the United States 260
Grain trade and harvests of Scotland 217
Grain exports and imports: Austro-Hungarian 285
Great Britain: agriculture in 201
imports of wheat and flour into 206
quicksilver in 310

H.

Harbor of Sagua la Grande, Cuba 304
Harvests and grain trade of Scotland 217
Hungarian statistical tax 286
Austro-Hungarian budget 288

I.

Imports from the United States at Mayaguez, Porto Rico 175
of American provisions at Leith 171
of metals across Russian frontier 234
and exports of grain—Austro-Hungarian 285
of wheat and flour to Great Britain 206
from United States at Bremen 311
Industry, wool, of New Zealand 269
International exhibition at Rome (proposed) 295
Iron market in Germany: fluctuations of 246
Italian paper currency 310
Italy: phylloxera in 310
consumption of beer 312
Inventions, American, in Switzerland, protection to 177

J.

Japan: rice cultivation 248

L.

Labor and wages in Cuba 307
Lambayeque, Peru: trade with the United States 179
La Paz, Mexico: commerce at 266
Leaf-metal and bronze-powder manufacture in Germany 185
Legislation on cotton frauds in Bombay 268
Leith: imports of American provisions 171
Lloyd, North German 190
Lyons: silk market of 272
exports to United States 276

M.

Madagascar: commercial and political condition of 220
Manufactures, cheap German 187

Page.
Manufacture of bronze powder and leaf metal in Germany 185
Manufactures in Australia 252
and trade of Germany 241
of English wool 209
silk of Lyons 274
Maracaibo: navigation of 237
trade and exports of 236
Marine: Russian merchant 238
Mayaguez, Porto Rico, and the United States: trade between 172
Mazatlan: quicksilver at 310
Meat (frozen): trade of Australia 259
Mediterranean: American flag on the 311
Merchant marine: Russian 238
Metals: imports of, across Russian frontier 234
Metallurgy and mining of Russia 230
Mexico: commerce at La Paz 266
quicksilver at Mazatlan 310
Mines in Australasia 253
Mining and metallurgy of Russia 230

N.

Navigation of Mayaguez, Porto Rico, for 1881 176
of Australia 261
of Maracaibo 237
New Zealand: wool industry of 269
Norway: seal and whale fisheries 293
North-German Lloyd 190
Number, tonnage, of vessels built on the Tyne in 1881 197

P.

Paper currency: Italian 310
Peru: trade of Lambayeque with the United States 179
Petroleum: American *vs.* German 183
Philippine Isles: free tobacco culture 282
Phylloxera in Italy 310
Pilotage at Sagua la Grande, Cuba 306
Pitch: American coal-tar, wanted 187
Plymouth, England, trade of 267
Political and commercial condition of Madagascar 220
Population of Australia 264
Port charges at Gibraltar 298
at Sagua la Grande, Cuba 304
Port dues at Bremerhaven for 1881 191
Porto Rico: trade between Mayaguez and the United States 172
tariff and tariff regulations at 296
Prices of silk: comparative table 278
Products and commerce of Australasia 250
Protection to American inventions in Switzerland 177
Provisions, American: imports of, at Leith 171
Public debt of Australia 262

Q.

Quicksilver at Mazatlan, Mexico 310
in Great Britain 310

R.

	Page.
Railways in Switzerland	214
Regulations, customs, and tariff, Porto Rico	296
Reservation and culture of forests	199
Rice cultivation in Japan	248
Rome: proposed international exhibition at	295
Russia: timber trade of	207
mining and metallurgy of	230
exports from, to the United States	313
exports and imports across frontier	234
Russian forests in 1877	208
mining, progress of	235
merchant marine	238

S.

Sagua la Grande, Cuba, harbor of	304
Savings banks in Austria	282
Scotland: grain trade and harvests of	217
Seal and whale fisheries in Norway	293
Seed, American clover, warning against	184
Ship-building in England	195
Siam: trade and commerce of	303
Silk market of Lyons	272
prices of	278
Statistics of chicory manufacture	247
of Australasia	265
vital, of Vienna	309
Statistical tax: Hungarian	286
Sugar-beet culture in Germany	280
Switzerland: protection to American inventions	177
railways in	215

T.

Tartar trade of Bordeaux	212
Tariff and regulations (customs), Porto Rico	296
Tax, statistical, Hungarian	286
Tonnage of vessels built on the Tyne	197
Trade: American, with Winnipeg	169
between Mayaguez, Porto Rico, and the United States	172
of Lambayeque, Peru, with the United States	179
between Canada and the United States	180
of the United States with Geestemunde-Bremerhaven	181
timber, of Russia	207
wine, of Bordeaux for 1881	211
tartar, of Bordeaux	212
grain and harvests in Scotland	217
and exports of Maracaibo	236
and manufactures of Germany	241
Australian with the United States	257
Australasian wool	258
of Plymouth, England	267
silk manufactures of Lyons	274
of the world; cotton goods, corrections	309
and commerce of Siam	303

Page.
Telegraphs in Europe 290
Timber trade of Russia 207
Tobacco culture in the Philippine Isles 282
in the Gironde 282
Tyne: ship-building on 197

U.

United States and Mayaguez, Porto Rico: trade between 172
shipments of Australian gold to 260
trade with Lambayeque, Peru 179
and Canada, trade between 180
and Geestemunde-Bremerhaven, trade between 181
German emigration to the 193
imports from, at Bremen 311
exports from Russia to the 313
exports from Lyons to 276

V.

Vessels built on the Wear in 1881 197
Vienna: vital statistics of 309
Victoria, Australia, manufactures of 252

W.

Wages and labor at Cuba 307
Warning against American clover-seed 184
Whale and seal fisheries in Norway 293
Wheat and flour imports into Great Britain 206
Winnipeg: American trade with 169
Wine crop of France for 1881 279
trade of Bordeaux for 1881 211
Wool, Australasian: trade 258
English: encouraging manufactures of 209
industry of New Zealand 269

O

COMMERCIAL RELATIONS OF THE UNITED STATES.

23330

REPORTS

FROM THE

CONSULS OF THE UNITED STATES

ON THE

COMMERCE, MANUFACTURES, ETC.,

OF THEIR

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CONTENTS.

Page.

CONTINENT OF AFRICA.

Liberian coffee:
(Report by Consul-General Smyth, of Monrovia) 463

CONTINENT OF AMERICA.

European *vs.* American trade methods in the Argentine Republic:
(Report by Consul Baker, of Buenos Ayres) 315
American bank wanted in Buenos Ayres:
(Report by Consul Baker) 318
Export of American cattle and swine to Canada:
(Report by Consul Pace, of Port Sarnia) 380
Trade and commerce at Acapulco:
(Report by Consul Sutter) 382
(This interesting report is erroneously credited to Consul Kelton, at page 382.)
Trade of Mazatlan:
(Report by Consul Kelton) 386
National progress in Mexico:
(Transmitted by Consul-General Strother) 434
Trade and commerce of Guaymas, Mexico:
(Report by Consul Willard) 438
Agriculture and colonization in Guerrero, Mexico:
(Report by Consul Sutter, of Acapulco) 445
Quicksilver in Mexico:
(Report by Consul-General Strother) 447
Interior commerce of the Argentine Republic:
(Report by Consul Baker, of Buenos Ayres) 448
Production of precious metals in the Argentine Republic:
(Report by Consul Baker, of Buenos Ayres) 452
Bolivian transit commerce through the Argentine Republic:
(Report by Consul Baker, of Buenos Ayres) 453
Trade and condition of Rio Hacha:
(Report by Vice-Consul Henriquez) 456
Commerce and navigation of Para, Brazil:
(Report by Consul Backus) 457
Trade of Victoria, Vancouver's Island:
(Report by Consul Francis) 458
Exports and imports of St. John's, N. F.:
(Report by Consul Molloy) 459
Fisheries of Gaspé Basin:
(Report by Consul Holt) 460

CONTINENT OF ASIA.

Page.

American cotton goods at Chin-Kiang:
(Report by Consul Smithers) 385

CONTINENT OF EUROPE.

Tariff laws and customs regulations of Germany:
(Report by Consul-General Vogeler, of Frankfort-on-Maine) 320
German discrimination against American manufactures:
(Report by Consul Schoenle, of Barmen) 324
British exports to the United States:
(Report by Consul-General Merritt, of London) 325
Irish and American trade in Ireland:
(Report by Consul Brooks, of Cork) 345
American trade in Scotland:
(Report by Consul Winter, of Dundee) 354
American trade in Birmingham:
(Report by Consul King) 360
American trade in Redditch:
(Report by Consular Agent Browning) 362
Trade of Bristol with the United States:
(Report by Consul Farrell) 362
American trade in Hull:
(Report by Commercial Agent Howard) 365
Export of potatoes from Leith to the United States:
(Report by Consul Leonard) 368
Trade and industries of Glasgow:
(Report by Consul Harte) 369
Exports of Tunstall pottery to the United States:
(Report by Consul Lane) 373
Swiss exports to the United States:
(Report by Consul Mason) 374
Exports from Geneva to the United States:
(Report by Consul Adams) 375
American trade in Holland:
(Report by Consul Eckstein) 376
American *vs.* Swiss silk manufactures:
(Report by Consul Mason, of Basle) 381
Trades of Dundee:
(Report by Consul Winter) 388
Scotch railways:
(Report by Consul Winter, of Dundee) 393
The fishing interests of Dundee:
(Report by Consul Winter) 394
The jute industry of Dundee:
(Report by Consul Winter) 398
Commerce and industries of Hull:
(Report by Commercial Agent Howard) 408
Commerce of Wales, 1881:
(Report by Consul Sykes, of Cardiff) 415
South Wales coal trade of 1881:
(Report by Consul Sykes, of Cardiff) 418
Trade and navigation of Falmouth:
(Report by Consul Fox) 420

Page.
The North Sea Canal:
(Report by Consul Eckstein) 423
Commerce and trade of Leghorn:
(Report by Consul Rice) 426
Grain trade in the Netherlands:
(Report by Consul Eckstein) 430
Austrian cereals and wine crop, 1881:
(Report by Secretary of Legation Delaplaine) 437
Navigation and commerce at Gibraltar:
(Report by Consul Sprague) 462

NOTES.

Steam communication between Brazil and New York 472
Cost of the principal vessels of the German Navy 472
German emigration to the United States 472
Trade with Dunfermline 472
Condition of American trade with Southampton 473
Increased trade with Dublin 473
Quicksilver in France 473
American trade with Mexico 473–475

CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

MARCH, 1882.

EUROPEAN VS. AMERICAN TRADE METHODS IN THE ARGENTINE REPUBLIC.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

The foreign commerce of the Argentine Republic now amounts to about $100,000,000 per annum, the imports being $44,000,000 and the exports $56,000,000. Of this amount the countries of Europe have control of about $80,000,000, the imports from that continent amounting to $34,000,000 and the exports thither reaching $46,000,000 annually. The amount of trade with the United States is now about $8,000,000 annually, say $5,000,000 for exports to and $3,000,000 for imports from that country, or only about 8 per cent. of the entire trade.

On general principles, considering the neighborship and similarity of governments, one would suppose that the commerce between the United States and the Argentine Republic, which has been almost stationary for a number of years, would have a better showing than this. The reason why it is not so, is plain. Trade is the inevitable outgrowth of a division of labor, assisted by the natural proclivities and aptitudes of men and nations for barter or exchange. The greater the facilities for exchange, whether in kind or otherwise, the greater the stimulus to commerce, not only among people of the same nation, but those of different nations. In regard to foreign commerce, those nations will secure the largest share which offer the speediest and easiest facilities for effecting exchanges; that is, for transporting cargoes, disposing of them promptly, and remitting the proceeds.

This is the cause of the commanding position, with reference to the commerce of the Argentine Republic, which the great maritime nations of Europe enjoy to-day. Having products to sell and products to buy, in the markets of the world, they have labored to make such traffic easy and certain by first establishing the ways and means for the quick and ready transaction of business. By gradual but sure methods they have laid the foundations for a fixed and permanent trade. They have arranged, as we may say, the tools and instruments by which they can handle the largest commerce with certainty and dispatch, and at the same time with a profit to all through whose hands it passes.

This really has been of more concern to them than idle panegyrics on the excellence or superiority of what they had to sell—for they argued, and argued correctly, that if the people of another nation have a demand for any particular article of merchandise or manufacture, they will buy it—even though its quality may be inferior—where they can procure it with the greatest ease and receive it in the quickest time. The methods employed by them thus to secure the trade of the Argentine Republic have not been secret or concealed, but are patent to us and to all the world, and may be stated in a word. They are—

First. Regular steam communication with the Argentine Republic, whereby the receipt of merchandise can be counted on to a day. This means of intercommunication is now so extended that there is hardly a day in the week that a steamer from some European port does not arrive in the river Plate. The English have six or seven different lines; the French have three; the Germans have four; the Italians have three; the Belgians have two; the Spanish have one, and the Dutch have one, and there is not a single maritime port of importance on the coast of Europe, or in the Mediterranean, but is connected by regular steamers with Montevideo and Buenos Ayres. The stimulus and impetus which these constantly arriving and constantly departing steamships give to trade is incalculable, and it is all directed to Europe. Sailing vessels are no longer employed, except for the heaviest freights, such as coal, or lumber, or salt, or wines. Everything in the hardware, grocery, or dry-goods line, intended for the Buenos Ayres market, comes here by steamer; and the merchant who gives the order by cable knows that it will be delivered here in twenty to thirty days. So he is not required to keep on hand such heavy stocks, and can take advantage of the fluctuations of prices in Europe.

Second. The advantage which steam communication gives to Europe in its trade with the river Plate is greatly enhanced by the fact that the mercantile firms doing business here are, as a general thing, branches of established houses in the business centers of the Old World, or are the immediate agents, if indeed not part owners, of manufacturing establishments in England and France, thus giving the parties here a personal and double interest in the orders which go forward. They are thus enabled to obtain their goods at times and in quantities to suit the trade, accompanied by the most favorable terms and credits. I have, however, in former reports referred to this fact, and it is not necessary to enlarge upon it.

Third. Another and most decided advantage which Europe enjoys is its banking facilities with the River Plate. The value of these, in the conduct of general trade, can hardly be overestimated. The labor of exchange is a most important ingredient in the business of reciprocal commerce, and certainly contributes as much to its success as rapid transportation. The receiving and remitting of money and the settling of balances are thus accomplished directly, cheaply, and without trouble.

The trade of Great Britain with the Argentine Republic is especially favored in this respect, possessing banking facilities here in the River Plate of the very first class. The "London and River Plate Bank (limited)" is an institution which has been in operation here for the last twenty years, with branches in Montevideo, Rosario, and Cordoba. It has an authorized capital of $10,000,000, of which $7,500,000 is paid up, with a reserve fund of $775,000. The establishment does a general banking business of all kinds, except the issuing of circulating notes, and the branch in Montevideo even has this privilege. It does a very large and successful business. I have before me the nineteenth annual report

of the directors, being for the year just closed, from which it appears that after making allowances for bad debts, adding $100,000 to the reserve fund, and paying $43,000 for the purchase of banking-houses abroad, they have declared a dividend of 4 per cent. and a bonus of 2 per cent. for the last half year, being, with the *interim* dividend paid last July, 10 per cent for the year, leaving a balance of $40,000 to be carried to the account of profit and loss for the current year.

So great has been the success of this institution that another English banking-house (the "English Bank of the River Plate, limited") has just been established here, with an authorized capital of $7,500,000, of which $5,000,000 is paid up. Doing business with the same facilities and on the same principles, it promises to be equally successful.

The Italians also have a flourishing bank here (the "Bank of Italy and the River Plate"). It has a paid-up capital of $1,500,000 and a reserve fund of $160,000. Its business has been remarkably successful, and it is now building a magnificent banking-house in this city. I have not before me its last annual report, but the dividend, after placing a large amount to the account of reserve fund, was 10 per cent. for the year. It enjoys a large share of the public confidence.

Besides these foreign banks, I would mention the Bank of the Province of Buenos Ayres, which belongs to and is the fiscal agent of the province, with branches in Dolores, San Nicolas, Chivilcoy, Mercedes, Lobos, Salto, Azul, Baradero, Chascamus, Tandil, Vienti-cinco de Mayo, San Pedro, Pergamino, Las Flores, and several other points in the province of Buenos Ayres. It has special privileges, issues bank notes which furnish the entire circulating medium of the province and almost of the entire republic, has close and intimate connections with all the money-centers of Europe, and does a large proportion of the exchange business of the country, domestic as well as foreign.

The only other public bank in Buenos Ayres is the "National Bank of the Argentine Republic." It has its charter from the national Congress, and, as it has branches at the capitals of the several provinces, it is, to a large extent, the fiscal agent of the general government. With the late money crisis in this country it was obliged to suspend specie payments, but it has since called in and redeemed all its circulation in this province. Its notes, however, still pass current in the other provinces and furnish the circulating medium for all parts of the republic outside of Buenos Ayres. It has now fully regained the confidence of the public, and its stock sells on the Bolsa at a large per cent. premium.

All the establishments I have mentioned do banking in all its branches. They discount bills, make loans on negotiable securities, attend to collections, receive deposits either for fixed periods or at sight, the interest on which is regulated by the market value of money; issue bills of credit to parties traveling abroad or for the purpose of purchasing goods, transfer funds, and sell exchange on the principal cities of Europe. I may state here, as a matter of some interest, that the rates at present allowed by the banks of this city are as follows: On deposits in account-current, 3 per cent.; on deposits subject to 30 days' notice of withdrawal, 3½ per cent.; on deposits for 90 days fixed, 4 per cent; and they charge 9 per cent. on debit balances in account; discounts are conventional, according to circumstances, but generally about 7 per cent.

It will be seen from the foregoing that the nations of Europe, in competing for the trade of the River Plate, have at least three very decided advantages over the United States, to wit, regular steam communica-

tion, intimate business relations, and extensive banking facilities. These are the commercial levers of the world, and place them in a position to keep the control of the commerce of the Argentine Republic, only permitting us to supply such articles as they cannot furnish, such as lumber, raw tobacco, kerosene, alcohol, sugar, and a few other articles of prime necessity, and a small but uncertain trade in furniture, hardware, cottons, drugs, paints, agricultural implements, groceries, ship-chandlery, stationery, &c., mostly received on special orders.

In considering the methods by which the commerce of the United States may be promoted, I have already in frequent reports discussed the importance of direct steam navigation with the River Plate, considering it as an essential prerequisite to the general introduction here of American manufactures, and insisting that so long as our intercourse with the Argentine Republic continues to be through the slow, uncertain, and irregular medium of sailing vessels, we cannot expect any great or decided improvement in our trade.

I have also argued the necessity of establishing more intimate relations between our manufacturers and the merchants of the Argentine Republic, explaining the impossibility of securing a permanent trade in any given commodity by means of commercial travelers, who sell by sample and have no interest in the business of those who employ them beyond the per cent. they may receive on orders secured during a flying visit here; and I have suggested the wiser plan of establishing branch houses here or arranging terms with reliable houses already established; or, in lieu of this, for the manufacturers to open agencies here, where their goods will always be found on sale in stock.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, January 16, 1882.

AN AMERICAN BANK WANTED IN BUENOS AYRES.

REPORT BY CONSUL BAKER.

I have not heretofore referred to the utter absence of direct banking facilities between our own and this country. There is no doubt that this is an explanation, at least in part, of the want of that activity which characterizes a healthy and satisfactory condition of trade. I believe that the establishment of an American bank here would be the means of working a change in this respect, and especially if it was accompanied by a direct line of steamships trading with the United States. It may be a question, however, whether such an institution would at once return very large dividends. There is no doubt that if parties could afford to wait the gradual process of changing the course of trade, or rather exchange, that it would ultimately not only command success, but enjoy a long life of prosperity. The great trouble in the way is the fact that all the banking business with the United States is now transacted through English banks. New York, as a financial center, is hardly known here. Credits sent out for the purchase of River Plate hides or wool are nearly all given on London. There is scarcely a hide or a pound of wool shipped from here to the United States the invoice of which, except in the case of special purchases, is not made out to Bar-

ing Brothers & Co., or to Brown Brothers & Co., or to some other English banking-house. And all remittances on account of sales of merchandise received from the United States are made by bills on London, or by express order, put into hides or other produce, the New York or Boston account taking the chances of a profit or loss in the shipment. A bill drawn here and payable in New York for any large amount could at present with difficulty find a purchaser here, while masters of vessels in remitting home their freight-money generally take drafts on London.

Recently, however, the American houses of A. C. Bean & Co. and G. B. Perry, drawing on Boston, and S. B. Hale & Co. and C. S. Bowers & Co., drawing on New York, have been doing some exchange business, more for accommodation than anything else. The establishment of an American bank here, with strong and well-known connections at home, would gradually make a change in the present method of conducting the American trade, and ultimately be the medium through which bills for merchandise coming from the United States, as well as bills paying for produce purchased here, would pass. Bills on the United States direct would take the place of bills on London. The advantage of a central exchange office of this kind for the American trade would soon manifest itself. Sellers would know where to sell, and buyers would know where to buy; and buyers and sellers would thus be brought together. It may be argued that the present limited trade of the United States with the Argentine Republic would hardly justify such an institution; but, if we are to have steam communication between New York and Buenos Ayres, the commerce between the two countries will necessarily increase and become more certain. I need not state that such a modification of our tariff as would make more possible the shipment of Argentine wools—other than carpet wools—to the United States, would give an increased stimulus to our trade with this country, and make a demand for closer banking facilities between the two; but I feel that any suggestion of this kind would be touching upon a subject which must be considered and settled, not from an Argentine but from an American point of view, it being of paramount importance that our own home interests should be taken into account, rather than those which may affect our trade with any particular country.

I may state generally that the business prospects of the Argentine Republic are in most respects more promising than they have been for years. The Argentine national government, during the year which has just closed, has greatly strengthened its financial position, and its credit in Europe was never better than it is at present—its bonds advancing from a discount of 10 to 15 per cent. to a premium on the London Exchange; while the endeavors of the government to increase and develop the resources of the country by means of railway extensions, the selling of its public lands, the opening of new ports, the extending of its agricultural industries, the encouragement of immigration, and generally the cultivation of the arts of peace, are more earnest, persistent, and hopeful than ever before. All these things help banking operations by increasing trade and creating commerce. In the midst of this present and prospective River Plate prosperity, it would be gratifying to see a bank here, especially representing American interests, and offering increased facilities for effecting exchanges between the two countries.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, January 16, 1882.

THE TARIFF LAWS AND CUSTOMS REGULATIONS OF GERMANY.

REPORT BY CONSUL-GENERAL VOGELER, OF FRANKFORT-ON-THE-MAIN.

Considerable interest has lately been excited by the action of the Germans custom authorities with reference to the rate of import duty levied upon certain articles of foreign production and manufacture. Reports of changes in the assessment of import duties on American articles have been made to the Department of State by consular officers of the United States from different points of the German Empire, accompanied by such comments and criticisms as the nature of these changes in each particular instance seemed to justify or require.

Without examining how far these comments or any of them were just, and without desiring in the least to criticise the reports of these consular officers, who deserve the commendation of the Department for their vigilance and zeal in the discharge of their official duties, I desire to submit to the Department of State a general review of the whole question, and of the action of the German authorities with reference thereto, in order that the Department may be able to judge of these proceedings with all the light which it is possible at the present time to throw upon them.

The aim of the founders of the North German Confederation—the precursor of the German Empire—was so to coalesce by uniformity of laws and proceedings, of taxes and duties, of money, weights, and measures, and of postal, telegraph, and railroad arrangements, the different states and peoples composing the German nation, as that in case of an attack by a hostile neighbor the feeling of unity engendered by these powerful material agencies should be so spontaneous and strong among the people as to exclude the possibility of internal dissensions, or of a refusal on the part of any of the German states to aid in the common defense. How wisely the plan was conceived, how admirably carried out, and how fully vindicated when the shock of 1870 came, is a matter of history. It was a masterpiece of farseeing statesmanship.

But not only the political, but also the material, results, growing out of this commercial and financial consolidation of Germany, have been, on the whole, beneficent. Obsolete internal customs-regulations have been annulled, the multifarious weights, measures, and coins, of more than 30 independent German principalities superseded by a uniform system of weights, measures, and money; in short, the thousand and one vexatious regulations which impeded the free and wholesome commercial intercourse between the people of the different German states have been abolished, and an era of greater commercial activity and enterprise inaugurated.

The German Customs Union—"*Deutsche Zollverein*"—was one of the agencies put into operation to foster and strengthen the feeling of German unity. The agitation in favor of it antedates by many years the formation of the North German Confederation. The idea originated with Prussian statesmen, and was finally consummated through the influence of Prussian diplomacy on June 4, 1867. The first uniform tariff law was passed October 1, 1870. It was amended by the law of July 7, 1873. Finally, both these laws were repealed and superseded by the law of July 15, 1879. This is the tariff law now in force. It was promulgated by the Emperor of Germany in the name of the German Em-

pire, with the consent of the "Bundesrath" and "Reichstag." The Empire (Reich), it should be stated, had succeeded to the rights and duties of the Zoll Parliament. The law of July 15, 1879, took effect on January 1, 1880. It was the result of a radical change of policy on the part of the German Government with reference to the method of raising the revenues of the empire. The policy of the government had been, up to the year 1879, essentially a free-trade policy. The tariff of 1870, as amended in 1873, had been very low. No protective power, or even intent, was claimed for it. Until the year 1879 it had not been thought expedient to raise any considerable portion of the revenues of the empire by indirect methods of taxation. Direct taxes, enabling every citizen to calculate precisely what the protection of the government cost him, had been the boast of the leading German state.

In 1879 all this was changed. By a skillful consolidation of different parties in the German Reichstag, brought about by means of political influences, a solid phalanx was formed in favor of a revision of the tariff. To this phalanx were added many members of other parties, representing constituencies interested in a high protective tariff, and thus the German chancellor succeeded in procuring the passage of a tariff law, which, as compared with that of 1870, is, in its intent and operation, a protective tariff law. More than that, it is the declared purpose of the imperial government, as announced in imperial messages and ministerial speeches, to raise all or nearly all its revenues by duties on imports on the one hand and the proceeds resulting from the operation of the post, the telegraph, the railroads, the mines, and forests, and the monopolized manufacture of tobacco and cigars on the other.

A characteristic feature of the German tariff law, the one which distinguishes it most widely from that of the United States, is the almost entire absence of all "ad valorem" duties. It is essentially a "tariff of weight." Only a few articles, such as horses, cattle, sheep, hogs, &c., and some minor articles of manufacture, are assessed by the piece, while the only articles which pay an ad valorem duty are plain and upholstered railway carriages, the latter paying 6 and 10 per cent. of their value respectively. This fact should be borne in mind in order to apprehend the points hereinafter discussed.

The tariff is fixed in marks, the monetary unit of Germany (one mark equal to 23.8 cents of the money of the United States). The unit of weight, for purposes of the tariff, is 100 kilograms (one kilogram equal to 2.2 pounds of the weight of the United States).

Many natural products are free of duty; among these I mention raw metals (except iron); cord wood; raw skins and hides; horse hair, camel hair; minerals; raw cotton, wool and silk; coal, charcoal, and peat; pitch, tar, animal oil, &c. Others pay a low rate of duty; timber, for example, pays 0.10 mark per 100 kilograms; barrel staves, 0.30 mark; tan bark, 0.50 mark; soda, 1.50 marks. Pig-iron pays 1 mark per 100 kilograms; petroleum, 6 marks; meat, raw or preserved is set down at 12 marks; preserved fruit at 60 marks. Cheese of all kinds pays 24 marks; fine zinc ware and fine iron ware, 24 marks per 100 kilograms. My reason for setting down the amount of duty assessed on some of the articles mentioned will presently appear. Wheat is 1 mark per 100 kilograms; rye, the same; barley, 0.50 mark; rape, 0.30 mark; flour, 2 marks; even such articles as cutlery, furniture, perfumeries, millinery goods, umbrellas, embroideries, silk dresses, silk hats, &c., are assessed by the 100 kilograms. As a matter of curiosity, I may mention that the last-named article (silk hats) is set down at 600 marks per 100 kilograms, and the last but one (silk dresses) at 900 marks.

The desire of the German Government, frequently expressed, to obtain the highest possible amount of revenue, by indirect methods of taxation, has already been referred to. There is no rotation in office in Germany. The tenure is a life tenure. Appointments to the higher offices are made after the completion of a course of study, prescribed by law, closed by thorough examination at the end of distinct curricula. Promotions are generally made very slowly and gradually, from place to place, as a reward for long and faithful service in the inferior position; in rare instances only, rapid promotion takes place, as a recognition of peculiar aptitude or superior qualification. The subordinate offices are given to subaltern army officers, who have served uninterruptedly for twelve years or more, and who desire to exchange the occupation of a drill-master with that of a uniformed customs or internal revenue officer or the like. As a mattter of course the members of this entire organization are intensely loyal. They study and apprehend quickly the general tendencies of the imperial government. They seek in every way to respond, not only to the direct instructions, but also to the general policy and desire of the government, as revealed to them by the utterances of the ministers and official press.

The custom-house regulations are prescribed by the "Bundesrath," that body which represents the different German states, and therefore somewhat resembles our Senate, while the Reichstag, the principal legislative body, elected directly by the people by universal suffrage, corresponds more nearly to our House of Representatives. Subsequently to the law of 1870, and to carry out its provisions, viz, on the 19th day of November, 1871, the Reichstag passed a series of custom-house regulations with reference to inclosures (tare) of different articles of export. Most of these regulations are still in force. The general rule as to inclosure of goods (tare) is this: That on articles assessed at a rate not exceeding 6 marks per 100 kilograms, the duty is charged on the gross weight, while of those paying a higher rate than 6 marks, the net weight is ascertained and no charge made for the tare.

There are, however, many exceptions to this rule. One of these exceptions was, and is (for the regulation is still in force), to this effect, viz: That if the inclosure (tare) of an article of import belongs to a class of articles on which a duty of 24 marks per 100 kilograms, or more, is assessed, while the article it incloses pays a duty of 12 marks or less, then the duty shall be assessed on the joint weight of the inclosure and the article inclosed, at the rate of the duty on the inclosure (tare).

It is very evident that this regulation was directed against frauds on the revenue; that its aim was to prevent, for instance, the importation of a material taxed at 24 marks or more, by making it serve as an inclosure (tare) of an article, taxed at say 3 or 4 marks per 100 kilograms. If this does not appear from the wording of the regulation itself, it does appear from the reading of the law to which these regulations are simply executory.

But right here the desire of the customs officers, to propitiate as much as possible the aims of the government made itself felt. The regulation referred to was used to change the existing revenue law and materially to raise the rates of duty on many articles. Up to the year 1879 it had been entirely dormant; now it became at once a living law. The *spirit* was lost sight of—it was carried out according to the *letter*. No intention to discriminate against any particular country is apparent. Nothing but a desire to increase the revenues, and at the same time to protect home production and industries, in defiance, it is true, of existing laws, can fairly be charged. But in the latter direction findings of fact are

made, and decisions based thereon which stagger credulity. American-preserved meat, instead of being assessed at 12 marks per 100 kilograms, is admitted as "fine iron ware," because contained in tin boxes, and a duty of 24 marks per 100 kilograms; emery, which is free, if packed in tin boxes is made to pay 24 marks, on the same ground; cheese, instead of 20 marks, if wrapped in tinfoil pays 24 marks, and there have been instances in which 200 marks were assessed, because, in the opinion of the custom-house officers, there was in the encasing an admixture of silver. Ink has been rated at 30 marks instead of 3 marks, because contained in what was declared to be "fine glassware." Well might a member of the Reichstag, commenting upon these absurdities, ask: "How else than in bottles was ink expected to be imported, when it was set down in the law at 3 marks per kilogram? Perhaps in sacks or blotting paper." A merchant imported a number of empty champagne bottles, sealed and labeled, to make a display in his show-window. The bottles were assessed at the custom-house at 30 marks per 100 kilograms, as "fine glassware," probably because they were tastefully labeled. Knit jackets and coats have been charged 300 marks, instead of 100 marks, because they seemed to the zealous custom-house officers to come under the head of "millinery goods." I might continue the subject indefinitely. The German press is discussing these eccentricities with much interest. The comic papers have a regular column for "custom-house curiosa"—travestying the decisions of custom-house officials by the most grotesque inventions.

The absurdity of the proceeding has been brought to the attention of the government by numerous German importers. The director of customs, Dr. Burchardt, has been called upon by members of the Reichstag to explain these anomalies. In answer to the questions addressed to this highest executive officer of the customs department, he has simply pointed to the regulation quoted.

It is clear that this construction of the regulation in question is utterly repugnant to the tariff law itself. The tariff law was enacted, as I have stated, by the Reichstag, agreed to by the Bundesrath, and signed and promulgated by the Emperor as the law of the land. The supplementary regulations, necessary to carry out the provisions of the tariff law, fall within the province of the Bundesrath. That these regulations must conform to and be consonant with the law, which they are intended to supplement and carry out, is an elementary principle of jurisprudence; yet the director of customs claims to stand on legal ground, and refuses to countermand his orders or reverse his decisions, as long as the regulation referred to remains unrepealed by the Bundesrath. In this position he is enforced by the general tendency of the government toward high rates of duty and protection.

Whether this condition of things will continue for any length of time or be changed by legal enactment or executive regulation, it is impossible to predict. There is no judicial tribunal in the country competent to decide such questions. They must be disposed of either by the Bundesrath itself changing or repealing the regulation or expounding its intent and proper application, or by legislative enactment. It is but fair, however, to state that the decisions of the custom authorities and the proceedings of the officers in pursuance thereof, although they affect very materially the trade in articles of American production, are not directed against the interests of any country in particular, but must be accounted for on the basis of the general policy of the government herein explained.

I have endeavored to assign for these strange and anomalous proceed-

ings the real and controlling motives, and contend that they furnish a complete and natural explanation thereof, and I respectfully submit this report to the Department of State, hoping to be excused if, in my desire to present a full view of the subject, I have touched upon matters of history with which the Department is more familiar than I am myself.

FERDINAND VOGELER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, January 25, 1882.

GERMAN DISCRIMINATION AGAINST AMERICAN MANUFACTURES.

REPORT BY CONSUL SCHOENLE, OF BARMEN.

The singular and vexatious classification of American corned beef under the head of "fine iron wares" in the official schedule of the rates of duties by the German Government, has been officially upheld and defended as an old doctrine laid down in the instructions issued to the custom-house officers about ten years ago. It is thus to be construed, that in all cases where the inclosing cover is liable to higher duty than the goods themselves, the incasing turns up as a dutiable object. Old as the doctrine may be, the interpretation is certainly a new one, for corned beef proper has been subjected in Germany to the import duties for a number of years, and not the labeled tin boxes, as is now the practice. For ten years German custom-house officers appeared not to be possessed of the slightest idea of this abstruse interpretation, but all at once a new spirit came upon them, so to speak.

But upon which theory is the latest tariff discrimination based, and to what extent will American exports be affected by it? It is a well known fact that goods made of horn, and especially of buffalo horn, such as fine combs, have been extensively imported from the United States to Germany for a number of years. These goods by a process of rubbing and painting assume a speckled appearance resembling tortoise-shell, and had been classified in the new German tariff under the head of "fine wood wares, and also wares of vegetable and animal carved materials with the exception of tortoise-shell," and accordingly subjected to a duty of 30 marks ($7.14) per 100 kilograms. Likewise pocket knives, whose handles are covered with thin bone or horn, which, through underlaid gold spangle, takes almost the appearance of tortoise-shell, had to pay up to this time the same rate of duty, namely 30 marks per 100 kilograms.

In order, however, to single out these goods, a new phraseology has been added to a section of the official schedule of the rates of duties, viz: "goods made wholly or partially of artificial tortoise-shell, respectively, imitations of tortoise-shell." In accordance with this the import duty on these spotted and checkered bone and horn wares has been raised to 200 marks ($47.60) per 100 kilograms.

This sudden increase of duty on these goods to an almost sevenfold amount appears to be the less warrantable as these roughly imitated component parts of bone and horn wares are put on the same level with the genuine polished tortoise-shell, and as by this exceedingly high rate of duty their future importation will be barred to such an extent as to render it almost impossible. There is evidently method in these tariff

sophistries, and this last one is apt to appear not only a fiscal eccentricity, but an unfriendly act, and an interested and intentional unfairness on the part of the German Government.

WOLFGANG SCHOENLE,
Consul.

UNITED STATES CONSULATE,
Barmen, January 18, 1882.

BRITISH EXPORTS TO THE UNITED STATES.

REPORT BY CONSUL-GENERAL MERRITT, OF LONDON.

I have the honor to present a statement of the condition of the various consulates in the United Kingdom. This statement relates especially to the business of the year 1881, and is based partly upon correspondence and intercourse with the consuls, and partly upon their reports now forwarded; supplemented also by returns compiled in this office showing the declared value of the exports to the United States from the respective consular districts during the year.

With this statement is also forwarded a report of the value of declared exports for the past nine years from the districts under my jurisdiction, so arranged as to show:

1. The value of exports from the various districts from 1873 to 1881, inclusive, in their alphabetical order.
2. A summary giving the gross total for each year.
3. A recapitulation for the nine years.
4. A recapitulation for the past twelve months.

Much time and labor have been bestowed on this return, in order to render it accurate and comprehensive. For purposes of analysis, and to show at a glance the course of the export trade between this Kingdom and the United States, I believe it will be found a faithful and valuable record.

I beg also to invite attention to a statement compiled at this consulate-general, giving the value of declared exports from the various consular districts of the United States in the United Kingdom for the four quarters of the years ending September 30, 1880 and 1881.

Last year's report exhibited the very large increase in the value of exports from the United Kingdom to the United States of $93,493,295.90.05, or a total increase of nearly 95 per cent. on the value of the preceding year. This year's compilation from the same sources exhibits a decrease of $33,187,228.31.52, or nearly 17 per cent., for the year ending September 30, 1881. The decrease was in fourteen consulates, the increase in eleven.

The total value of exports from this Kingdom to the United States for the year was $158,786,061.90.61.

The following table exhibits the most important decreases and increases:

DECREASES IN EXPORTS TO THE UNITED STATES.

Belfast:	
This year a decrease of	$1,559,732
Last year an increase of	2,087,676
Birmingham:	
This year a decrease of	543,821
Last year an increase of	2,485,161

Bradford:	
This year a decrease of	$3,640,252
Last year an increase of	4,776,358
Cork:	
This year a decrease of	128,769
Last year an increase of	225,008
Dundee:	
This year a decrease of	843,095
Last year an increase of	3,111,814
Dunfermline:	
This year a decrease of	270,941
Last year an increase of	717,182
Falmouth:	
This year a decrease of	55,951
Last year an increase of	65,215
Leeds:	
This year a decrease of	775,537
Last year an increase of	2,058,372
Liverpool:	
This year a decrease of	13,469,760
Last year an increase of	19,527,319
London:	
This year a decrease of	12,131,146
Last year an increase of	38,260,248
Manchester:	
This year a decrease of	3,088,053
Last year an increase of	6,421,937

INCREASES IN EXPORTS TO THE UNITED STATES.

Cardiff:	
This year an increase of	$323,748
Last year an increase of	1,217,480
Dublin:	
This year an increase of	143,383
Last year an increase of	327,197
Glasgow:	
This year an increase of	503,303
Last year an increase of	3,921,582
Gloucester:	
This year an increase of	60,692
Leith:	
This year an increase of	39,257
Last year an increase of	179,382
Newcastle-on-Tyne:	
This year an increase of	306,759
Last year an increase of	1,310,245
Nottingham:	
This year an increase of	1,329,509
Last year an increase of	2,716,562
Sheffield:	
This year an increase of	766,077
Last year an increase of	2,465,749
Tunstall:	
This year an increase of	111,915
Last year an increase of	1,016,368

I have now the honor to refer to the condition of the several consulates within my jurisdiction.

BELFAST.

The improvement noted in the report of last year has not been maintained—the returns showing a decrease for the last twelve months of $1,559,732, or over 16½ per cent.; a decrease occurred in the December, March, and June quarters, while there was an increase in the last (September) quarter. Last year the increase was over 28 per cent.

The following figures show the value of declared exports for the past nine years:

Year ending September 30—	
1873	$7,460,197 10
1874	7,737,266 18
1875	7,243,160 36
1876	6,244,088 77
1877	6,640,559 13
1878	6,243,226 62
1879	7,328,156 19
1880	9,415,832 81
1881	7,856,100 68
Total	66,168,587 84

Linens and cottons constitute more than 89 per cent. of the declared value of exports, as against 92 per cent. last year.

The consul for this district (Mr. A. B. Wood) furnishes some carefully prepared tables bearing on the staple industry of this locality, to which I invite attention.*

BIRMINGHAM.

The figures from this well-known manufacturing center exhibit a decrease of $543,821, or more than 11 per cent. Last year the increase was over 102 per cent. The following statistics show the declared value of exports for the past nine years:

Year ending September 30—	
1873	$7,463,185 72.49
1874	5,778,957 84.00
1875	4,791,231 29.00
1876	3,135,234 92.00
1877	2,842,871 05.00
1878	2,309,513 42.00
1879	2,435,271 89.00
1880	4,920,433 58.00
1881	4,376,611 92.00
Total	38,053,311 63.49

From the foregoing it will be observed that business at this point has recovered from the great depression it experienced during the years 1876, '77, '78, and '79. The returns for the quarter ending September 30, 1881, point to an increase of about 10 per cent. as compared with the corresponding quarter of the previous year.

BRADFORD.

The value of declared exports from this consulate shows a falling off of $3,640,251, or nearly 34 per cent. as compared with that of the preceding twelve months—last year an increase was exhibited of $4,776,358, or more than 80 per cent. Stuffs constituted nearly 72 per cent. of the entire value of declared exports from this district to the United States, as against nearly 68 per cent. last year. A decrease occurred in the first three quarters of the year, while the September quarter exhibits an increase of $128,785.53.

The following figures show the course of trade for the last nine years:

Year ending September 30—	
1873	$15,900,091 72
1874	13,841,819 21
1875	11,629,262 15

* Consul Wood's report will appear in the ensuing number of these publications.

Year ending September 30—	
1876	$7,197,347 88
1877	7,311,101 75
1878	5,693,799 37
1879	5,955,287 85
1880	10,731,646 49
1881	7,091,394 18
Total	85,351,750 60

BRISTOL.

There has been a decrease in each of the four quarters of the year ending September 30, as compared with the preceding twelve months, amounting in the aggregate to $19,198.68, or more than 12 per cent.

The declared value of exports from this center to the United States for the past nine years has been:

Year ending September 30—	
1873	$306,901 76
1874	305,863 06
1875	390,595 58
1876	217,427 57
1877	218,222 00
1878	166,648 20
1879	164,552 24
1880	157,177 01
1881	137,978 33
Total	2,065,365 75

CARDIFF.

With the exception of the March quarter, the returns from this district exhibit an increase in each quarter of the year, amounting in the aggregate to $323,748.49, or nearly 18 per cent. as compared with the preceding twelve months. Last year the increase noted was more than 200 per cent., and the year before that nearly 105 per cent. Notwithstanding these large increases it will be observed that the figures for the twelve months with which I am now dealing do not yet bear comparison with those recorded for 1873.

The following are the statistics for the past nine years at this center, viz:

Year ending September 30—	
1873	$4,411,124 39
1874	497,161 78
1875	445,730 44
1876	155,294 69
1877	102,271 70
1878	296,903 74
1879	607,331 57
1880	1,824,812 07
1881	2,148,560 56
Total	10,489,190 94

Rails constitute more than 48½ per cent. of the entire value of declared exports from this district. Tin and terne plates rank next, exceeding 24 per cent.

The price of coal during the year has been from $2.16 to $2.50 per ton, with a brisk trade and firm prices; the iron and steel trades have exhibited considerable animation, and it is believed that there are suffi-

cient orders in hand to insure a continuance of work for some time to come.

A line of steamers has been established between Newport (a dependency of this consulate) and New York.

During the past twelve months the business of this district has steadily increased, and there would seem to be indications of prosperous times for 1882.

CORK.

For the year ending September 30, 1880, the returns for this point exhibited an increase in each quarter; this year there is a decrease in each quarter amounting to $128,769.91, or nearly 42 per cent.

Hides and skins maintain their position as the chief articles of export from this district.

The following figures give the declared value of exports for the past nine years, viz:

Year ending September 30—	
1873	$147,571 32
1874	115,374 35
1875	80,159 58
1876	37,455 01
1877	40,845 71
1878	53,203 07
1879	83,016 01
1880	308,024 93
1881	179,255 02
Total	1,044,905 00

DUBLIN.

There is an increase to be noted in each quarter of the year, ending September 30, 1881, as compared with the preceding twelve months, amounting altogether to $143,338.40, or nearly 14 per cent. As heretofore, salted skins, ale, and porter constitute the principal articles of declared export from this center.

The following figures give the value of exports for the past nine years, viz:

Year ending September 30—	
1873	$1,164,020 68
1874	928,900 81
1875	769,660 39
1876	639,550 65
1877	550,311 80
1878	583,162 66
1879	702,218 46
1880	1,029,415 77
1881	1,172,754 17
Total	7,539,995 39

DUNDEE.

The figures for this district show a decrease in the value of declared exports for the twelve months ending September 30, 1881, of $843,095.37, or more than 10 per cent. as compared with the previous year. Burlaps and linens are by far the most important articles of export from this center.

The following figures give the declared value of exports from this district for the past nine years:

Year ending September 30—	
1873	$7,094,321 53
1874	6,685,688 74
1875	5,999,913 37
1876	5,473,143 70
1877	4,825,588 12
1878	4,641,560 47
1879	5,112,470 82
1880	8,224,285 20
1881	7,381,189 83
Total	55,438,161 78

I take pleasure in calling attention to the carefully prepared and interesting reports furnished by the consul (Mr. John F. Winter) for this district.*

DUNFERMLINE.

The returns for this district exhibit a decrease of $270,941.31 as compared with the previous twelve months, or more than 12½ per cent. Last year there was an increase of over 49 per cent. The decrease now recorded is doubtless owing to the fact that large shipments were made last year which did not find the ready sale then anticipated.

Linen goods constitute nearly 76 per cent. of the entire value of declared exports from this center.

The following are the figures for the past four years, prior to which Dunfermline was an agency of the Leith consulate.

Year ending September 30—	
1873	An agency of the Leith consulate.
1874	
1875	
1876	
1877	
1878	$1,099,002 88
1879	1,443,045 32
1880	2,160,227 76
1881	1,889,286 45
Total	6,591,562 41

FALMOUTH.

The returns from this port exhibit a decrease of $55,951.61 as compared with the preceding year, or more than 42 per cent. If the figures for 1880 were excluded (which were greatly increased by the very unusual circumstance of a cargo of Havana sugar, valued at $67,509.90, having been ordered from this port to New York), it will be observed that the exports to the United States from this center for the past twelve months exceed those of previous years.

The tin-mining industry of this district is once more in a fairly prosperous condition.

The following statistics give the declared value of exports for the past nine years, viz:

Year ending September 30—	
1873	$54,052 30
1874	60,420 52
1875	57,487,85
1876	44,636 44

* Consul Winter's reports are published in this number.

Year ending September 30—	
1877	$53,451 77
1878	55,036 64
1879	67,253 47
1880	132,469 40
1881	76,517 79
Total	601,326 18

GLASGOW.

For the the year ending September 30, 1881, the returns for this district, as compared with the preceding twelve months, show an increase of $503,303.82, or nearly 5½ per cent. Last year the increase noted was 74 per cent.

Thread and chemicals constitute more than 24 per cent. of the entire value of declared exports from this district, pig-iron ranking next, being 11 per cent.

The general trade and commerce of Glasgow is gradually recovering from the depression which has existed for several years, and at present the outlook, in almost every branch of trade, is of a hopeful nature. It is stated that the tonnage on hand at this port is larger than the total tonnage put into the water during the year 1874, the busiest period in the history of Clyde shipbuilding.

The harvest in Scotland in 1881, is estimated to be much below the average.

The following figures show the course of trade at this center during the past nine years:

Year ending September 30—	
1873	$8,262,433 88
1874	6,377,818 61
1875	5,796,299 62
1876	5,101,128 94
1877	4,589,156 85
1878	4,249,000 00
1879	5,298,345 00
1880	9,219,927 88
1881	9,723,231 70
Total	58,617,332 48

GLOUCESTER.

The figures from this district for the year ending September 30, 1881, as compared with those for the preceding twelve months, show an increase of $60,692.24, or nearly 31 per cent. Prior to 1880 Gloucester was an agency of the Bristol consulate, the value of declared exports from which city is but little more than half of that returned for this center. It is believed that the harvest at this point will turn out satisfactorily both as regards quality and quantity.

The following are the figures for the past two years, viz:

Year ending September 30—	
1873	An agency of the Bristol consulate.
1874	
1875	
1876	
1877	
1878	
1879	
1880	$195,880 38
1881	256,572 62
Total	452,453 00

HULL.

The returns from this, one of the most important ports on the eastern coast of England, exhibit a falling off of $274,893.75, or more than 50 per cent., as compared with the figures furnished for the twelve months ending September 30, 1880; but it appears that on making up the statistics for the current year the present incumbent, who has but recently been appointed to this post, discovered an error in the footings for the quarter ending December 31, 1879, of $200,000 in excess of the real sum. This will, to a great extent, account for the large decrease now shown. Colors, ale, and skins are the principal articles of value exported from this port to the United States.

A line of steamers runs regularly between Hull, Boston, and New York, and a considerable number of American cattle are landed here.

American hams, bacon, lard, butter, and cheese find a ready market in this locality, and large quantities of American bacon are exported hence to Sweden and Norway.

The report furnished by the commercial agent for this district is full of interesting matter, and I consider his remarks under the head of "relief of American seamen"* deserving of consideration.

The following are the figures as furnished for the past three years, prior to which Hull was an agency of the Leeds consulate.

Year ending September 30—	
1873	An agency of the Leeds consulate.
1874	
1875	
1876	
1877	
1878	
1879	$131,683 09
1880	547,247 23
1881	272,353 48
Total	951,283 80

LEEDS.

The returns for the year ending September 30, 1881, as compared with those for the preceding twelve months, show a decrease of $775,537.02, or more than 21 per cent. Last year there was an increase of over 132 per cent. Up to 1879 the present commercial agency at Hull was a consular agency of Leeds.

Woolens, as heretofore, constitute the chief article of export from this center.

The following figures represent the declared value of exports for the past nine years, viz:

Year ending September 30—	
1873	$4,868,277 08
1874	3,602,104 55
1875	3,626,535 43
1876	2,135,376 68
1877	1,704,327 58
1878	1,411,370 59
1879	1,556,965 96
1880	3,615,338 69
1881	2,839,801 07
Total	25,360,097 03

*Published in this number.

LEITH.

The improvement noted last year has not only been maintained, but the figures for the present year exhibit an increase of $39,257; or more than 7 per cent.

The great difference between the figures for 1877 and the subsequent years arises from the fact that Dunfermline, now raised to the grade of a commercial agency (to which place Kirkcaldy is now an agency), was, prior to 1878, a consular agency of Leith.

Books continue to form the article of export of chief value from this district.

The farmers in Scotland have this year experienced exceedingly hard times; the weather has been unpropitious, the long continued wet weather during the summer months considerably aggravated the situation in consequence of the increased outlay thereby rendered necessary. The depression caused by a long succession of bad seasons (last year excluded) has resulted in meetings of farmers, and others interested in agriculture, being held with a view to obtain such legislative enactments as may ameliorate their position. They contend that high rents, foreign competition, and absence of compensation to tenants for capital expended on permanent improvement of the land, have caused the present serious agricultural depression.

The following are the declared values of exports from this center for the past nine years:

Year ending September 30—	
1873	$2,996,418 26
1874	1,862,032 28
1875	2,294,385 65
1876	1,779,976 39
1877	1,671,257 79
1878	611,810 09
1879	368,939 12
1880	548,321 12
1881	587,578 90
Total	12,720,719 60

LIVERPOOL.

The returns from this, the principal steam port of the world, exhibit a decrease for the year ending September 30, 1881, of $13,469,760.61, or more than 31½ per cent., as compared with the preceding twelve months. There was a considerable decrease in the first three-quarters of the year, and a slight increase in the last. In the previous report from this consulate the increase then recorded was more than 84½ per cent.

Tin plates constitute more than 27 per cent. of the declared exports. Last year they formed 39 per cent.; chemicals 16 per cent. as against not quite 14 per cent. last year; the respective decreases in these two articles alone having been $1,152,611.03 and $1,020,649.34.

The following statistics give the course of trade at this center for the past nine years:

Year ending September 30—	
1873	$36,095,983 86
1874	31,761,783 75
1875	27,307,312 61
1876	22,947,802 20
1877	22,585,056 66
1878	19,084,235 15
1879	23,062,247 11
1880	42,589,566 16
1881	29,119,805 55
Total	254,583,793 05

. Shipbuilding at this port exhibits an improvement, shipbuilders being well supplied with work at enhanced prices. Most of the good building-yards are full, and it is difficult to place orders at present, with delivery under fifteen or eighteen months, even at the advanced rate. Present appearances indicate little chance of a reduction in prices for the next twelve months. The men are very unsettled, and evince a determination to share in the general improvement, which fact, doubtless, has the effect of maintaining the high price of shipbuilding, not only in this district but throughout the country.

The latest style of shipbuilding is "to go in" for beam as against length, which was the practice of the past decade. Ordinary cargo steamers with fair speed—say, one-horse power to 10 tons of gross tonnage, were, within the last three months, to be had from $48.67 to $51.10 per ton of dead-weight capacity. Now (November, 1881) at least $53.53 to $58.40 would have to be paid, with twelve months' time for delivery.

The total value of imports from the United States was $301,965,460 for 1880, against $260,089,109 for 1879, or an increase of $41,876,351.

The customs revenue at this city during the year 1880 amounted to $13,960,441; in 1879 it was $13,976,942.

The various tabulated statements prepared at this consulate supply much important and interesting data.

LONDON.

The returns for the consulate-general exhibit a considerable decrease in the first three quarters of the year, and a substantial increase in the last quarter, as compared with the preceding twelve months, the net total decrease being $12,131,146.73.92, or more than 19 per cent. In last year's report the increase noted was more than 156½ per cent. It will be observed that nothwithstanding the decrease that has taken place during the past year (ending September 30, 1881), the value of declared exports from this city is largely in excess of any other point within my jurisdiction.

The following figures show the total values of declared exports during the past nine years, viz:

Year ending September 30—	
1873	$36,883,557 37.55
1874	29,402,080 24.52
1875	25,602,624 67.66
1876	20,509,669 26.54
1877	22,728,837 83.75
1878	19,416,581 34.56
1879	24,420,872 05.08
1880	62,681,120 18.13
1881	50,549,973 44.21
Total	292,195,316 42 00

SHIPPING.

The tonnage of vessels engaged in the foreign trade, that entered and cleared at the port of London in 1880, exceeded that of last year, which up to that period, was the largest on record. There was a slight increase in the number of vessels and tonnage entered, but a small falling off in the number of vessels cleared, although an increase in the tonnage thereof.

The entries were 11,320 vessels, representing 5,970,341 tons, and the clearances 8,541 vessels of 4,606,641 tons; of the total tonnage engaged

in foreign trade with London, more than 72 per cent. was under the British flag. In 1879 it was nearly 75 per cent.

The returns of the tonnage engaged in the coasting trade show an increase of 315,799 tons. In 1879 the increase recorded was 100,000 tons.

The number of vessels entered coastwise was 38,584, representing 4,483,830 tons. The number cleared with cargoes was 10,088 vessels, representing 1,418,296 tons.

Thirty-eight American vessels entered the port during the twelve months ending September 30, 1881, as against eighty-two in 1880.

The tonnage of American vessels entered during the same period was 44,915.53; a decrease of 51,601.36, as compared with the preceding year.

The value of merchandise imported into London in American vessels for the year ending September 30, 1881, was about $5,549,220, and the exports $809,725. For the previous year the imports were $5,779,700, and the exports $1,843,115.

IMPORTS.

The value of imports into London during the year 1880, was $688,119,742, or more than 34 per cent. of the total of all imports into the United Kingdom.

As compared with 1879 this shows an increase of $60,022,954.

A very large proportion (in some instances nearly the whole) of the entire imports into the United Kingdom of the following articles were entered at the port of London, viz: sheep and lambs, cocoa, coffee, raw silk, tea, tin, and sheep and lambs' wool.

London also received the largest importations of grain, raw hides, indigo, petroleum, eggs, potatoes, rice, seeds, skins, spirits, sugar, tobacco, wine, and timber.

CUSTOMS.

The customs revenue collected at London during 1880 was $48,125,611, a decrease of $2,005,417. London contributed nearly 51½ per cent. of the total customs receipts of the United Kingdom.

EXPORTS.

The value of exports of British and Irish produce and manufacture from London in 1880 was $255,903,519, or more than 23½ per cent. of the total value of British and Irish produce exported from the United Kingdom. In 1879 it was $230,288,438, being an increase of $25,615,081.

The exports from London consisted principally of apparel, cotton yarn, cotton manufactures, harberdashery, hardware, leather, machinery, metals, telegraphic wires and apparatus, and woolen manufactures.

In foreign and colonial produce the following were the principal articles of chief value exported from London: cocoa, coffee, jute, tin, quicksilver, rice, spices, spirits, sugar, tea, tobacco, wine, and wool.

Table showing the value of declared exports from the consulate-general of London to the United States for the years 1880 *and* 1881, *also decrease or increase of value in the articles named.*

Articles.	1880.	1881.	Increase.	Decrease.	Percentages of— Increase.	Decrease.
					Per ct.	*Per ct.*
Beer, wines, and spirits.	$475,906 77	$315,487 04	.....	$160,119 73	.....	+ 33½
Chemicals, soda, &c.	4,767,743 40	2,665,332 93	.....	2,102,410 46	.....	+ 44
Books and stationery.	1,343,003 03	1,019,763 31	.....	323,239 72	.....	+ 24
Dry goods	3,396,160 81	2,751,639 64	.....	644,521 16	.....	+ 18½
Machinery and hardware.	101,194 71	91,115 43	.....	10,079 27	.....	− 10
Iron, steel, &c.	30,080,727 45	17,155,978 62	.....	12,924,748 83	.....	− 43
Leather, hides, skins, furs, &c.	4,995,541 85	3,932,731 49	.....	1,062,810 36	.....	+ 21
Rags and paper waste.	1,265,907 19	547,946 50	.....	717,960 68	.....	+ 56½
Wool	1,738,222 73	371,825 33	.....	1,366,397 39	.....	+ 78½
Raw silk	62,169 15	186,218 38	$124,049 23.44	.....	+ 200	.....
Tea	54,651 50	87,525 84	32,874 34.29	.....	+ 60	.....
Clothing	196,900 92	68,069 54	.....	128,831 38	.....	+ 65
Precious stones	2,472,695 31	2,972,466 89	499,771 58.45	.....	+ 20	.....
Hops	22,609 75	7,157 16	.....	15,452 59	.....	+ 68
Seeds	216,457 80	199,273 21	.....	17,184 58	.....	− 8
Feathers	543,247 07	1,429,567 18	886,320 11.20	.....	+ 163	.....
Miscellaneous	10,947,980 76	16,747,874 95	5,799,894 19.32	.....	+ 53	.....
Total	62,681,120 18	50,549,973 44	7,342,909 46.79	19,474,056 20		

Net total decrease more than 19 per cent.

SUMMARY.

Total for year ending September 30, 1880.	$62,681,120 18.13	Decrease in twelve articles	$19,474,056 20.71
Total for year ending September 30, 1881.	50,549,973 44.21	Increase in five articles	7,342,909 46.79
Net total decrease	12,131,146 73.92	Net total decrease	12,131,146 73.92

LONDONDERRY.

The returns from this point exhibit a decrease for the year ending September 30, 1881, of $1,057.10, or, as nearly as possible, 40½ per cent. as compared with the preceding twelve months.

The exports from this district to the United States are exceedingly small, as the following statistics show:

Year ending September 30—	
1873	$173,295 77
1874	50,757 47
1875	5,585 02
1876	6,248 07
1877	782 16
1878	1,797 66
1879	2,133 92
1880	2,610 03
1881	1,552 93
Total	244,763 03

MANCHESTER.

The export business with the United States from this important cotton manufacturing district has not been as brisk as last year; the returns exhibiting a decrease in each quarter of the year ending September 30,

1881, as compared with the preceding twelve months, of $3,088,053.99, or more than 20 per cent.

Cottons constitute more than 25½ per cent. of the entire value of declared exports, as against 44 last year.

The following figures show the course of trade at this point for the past nine years, viz:

Year ending September 30—	
1873	$21,978,696 48
1874	19,339,295 72
1875	18,139,681 27
1876	10,141,092 94
1877	9,876,768 09
1878	8,176,886 53
1879	8,814,443 92
1880	15,236,381 28
1881	12,148,327 29
Total	123,851,573 52

The question of the adulteration of American cotton is one of such vital importance to American industry that I deem it my duty to call special attention to the views of the consul (Mr. A. D. Shaw) for this district.*

NEWCASTLE-ON-TYNE.

The figures from this district for the year ending September 30, 1881, as compared with the preceding twelve months, exhibit an increase of $306,759.66, or more than 13 per cent. In last year's report, the increase noted was over 128½ per cent. Sodas constitute more than 21½ per cent. of the entire value of declared exports, as against 32½ per cent. last year. Iron ranks next, being nearly 9 per cent. as against 26 last year.

Notwithstanding the continuous increase during the past four years, the declared value of exports still falls short of what it was in 1873.

The following table gives the exports at this center for the past nine years:

Year ending September 30—	
1873	$3,259,780 96
1874	1,179,818 65
1875	835,181 00
1876	839,007 29
1877	640,836 16 107,863 09
1878	793,289 86
1879	1,018,306 44
1880	2,328,551 69
1881	2,635,311 35
Total	13,637,946 49

NOTTINGHAM.

The returns from this district show an increase of $1,329,508.02, or more than 18½ per cent. as compared with the preceding twelve months. Lace goods are the specialty of this district and constitute more than 78 per cent. of the entire value of declared exports. The great increase that has taken place in exports to the United States from this center

*Consul Shaw's report on the adulteration of American cotton was published in consular reports No. 15, for January, 1882.

during the past year is remarkable, as the following statistics fully verify:

Year ending September 30—	
1873	An agency of the Sheffield consulate.
1874	
1875	
1876	
1877	
1878	$3,062,216 71
1879	4,421,233 42
1880	7,137,796 16
1881	8,467,304 18
Total	23,088,550 47

PLYMOUTH.

The returns for this port for the twelve months ending September 30, 1881, as compared with the preceding year, show a considerable increase, viz, $20,976.01, or nearly 55 per cent.

The declared value of exports from this center for the past nine years is as follows:

Year ending September 30—	
1873	$37,594 90.00
1874	22,038 70.00
1875	4,980 56.00
1876	1,620 26.00
1877	21,071 69.00
1878	21,473 92.20
1879	10,611 34.00
1880	38,154 94.00
1881	59,130 95.00
Total	216,677 26.20

SHEFFIELD.

The returns from this district for the twelve months ending September 30, 1881, as compared with the preceding year, exhibit an increase in each quarter amounting in the aggregate to $766,077.05, or more than 14½ per cent. A large portion of this increase is to be credited to the item of Bessemer steel rails. This fact would appear to warrant the following queries:

Are the American mills unable to supply the home market?

Can Sheffield makers afford to sell it at a less price?

Is the Sheffield rail better in quality than the home made article?

To those interested in this branch of commerce, I would direct them to the remarks of the consul at this point on this subject.

The following statistics furnish the value of declared exports from this place for the past nine years:

Year ending September 30—	
1873	$14,197,614 72
1874	11,309,037 51
1875	7,725,718 08
1876	5,698,197 78
1877	5,720,331 20
1878	2,140,443 49
1879	2,723,943 18
1880	5,189,692 84
1881	5,955,769 89
Total	60,660,748 69

SOUTHAMPTON.

The returns for this port for the year ending September 30, 1881, as compared with the preceding twelve months, exhibit an increase of $9,406.38.40, or more than 27 per cent.

Live stock constitutes more than 50½ per cent. of the entire value of declared exports for the past year.

The following statistics indicate the course of trade at this center with the United States during the past nine years:

Year ending September 30—	
1873	$39,774 58.00
1874	17,662 67.00
1875	9,786 58.00
1876	20,653 69.00
1877*	
1878	44,536 28.00
1879	64,189 22.00
1880	34,532 49.00
1881	43,938 87.40
Total	275,074 38.40

TUNSTALL.

The returns from this district exhibit a small increase, viz, $111,915, or more than 3 per cent., in the value of declared exports for the year ending September 30, 1881, as compared with the preceding twelve months. Last year an increase of more than 38 per cent. took place. There was an increase in the December, March, and June quarters, but a decrease in the September quarter, as compared with those of the preceding year. This is the first decrease that has occurred in the exports from this district since the quarter ending December 31, 1878, and from the generally hopeful feeling among manufacturers this decrease is not thought to indicate an immediate decline in the American trade, although it is easy to discover a prevalent apprehension among manufacturers that at some time—possibly indefinitely remote—the pottery industry will attain to such proportions in the United States as to seriously affect them; this apprehension will be more readily understood from the fact that the exports to the United States of earthenware, parian, china, majolica, porcelain ware, and tiles, amount annually to nearly as much as those of all other countries combined.

Earthenware represents more than 86 per cent. of the entire value of the declared exports from this center to the United States for the twelve months, as against 87 per cent. for the preceding year.

The following statistics give the value of declared exports for the last nine years:

Year ending September 30—	
1873	$4,211,584 33.45
1874	2,913,201 94.65
1875	2,722,526 55.55
1876	2,568,707 12.00
1877	2,428,483 17.00
1878	2,604,681 77.00
1879	2,687,476 73.00
1880	3,703,844 73.00
1881	3,815,760 65.00
Total	27,656,267 00.65

*During this period Southampton was an agency of London.

I beg now to call attention to the accompanying detailed reports and tables upon which this dispatch has been based.

I am, sir, very respectfully, your obedient servant,

E. A. MERRITT,
Consul-General.

Statement showing value of exports from the United Kingdom to the United States for the year ending September 30, 1881, together with value for preceding year; also, column exhibiting decrease or increase for period named.

District.	Staple.	1881.	1880.	Decrease and increase.
Belfast	Linens	$7,856,100 68	$9,415,832 81	*$1,559,732 13
Birmingham	Hardware, cutlery, steel, &c	4,376,611 92	4,920,433 58	*543,821 66
Bradford	Stuffs	7,091,394 18	10,731,646 49	*3,640,252 31
Bristol	Chemicals	137,978 33	157,177 01	*19,198 68
Cardiff	Rails	2,148,560 56	1,824,812 07	†323,748 49
Cork	Hides	179,255 02	308,024 93	*128,769 91
Dublin	Salted skins, ale and porter	1,172,754 17	1,029,415 77	†143,338 40
Dundee	Burlaps	7,381,189 83	8,224,285 20	*843,095 37
Dunfermline	Linens	1,889,286 45	2,160,227 76	*270,941 31
Falmouth	China clay	76,517 79	132,469 40	*55,951 61
Glasgow	Thread and chemicals	9,723,231 70	9,219,927 88	†503,303 82
Gloucester	Salt	256,572 62	195,880 38	†60,692 24
Hull	Colors, ale, and skins	272,353 48	547,247 23	*274,893 75
Leeds	Woolens	2,839,801 07	3,615,338 09	*775,537 02
Leith	Books	587,578 90	548,321 12	†39,257 78
Liverpool	Tinplates	29,119,805 55	42,589,568 16	*13,469,760 61
London	Miscellaneous	50,549,973 44	62,681,120 18	*12,131,146 73
Londonderry	Whisky	1,552 93	2,610 03	*1,057 10
Manchester	Cotton and stuff goods	12,148,327 39	15,236,381 28	*3,088,053 89
Newcastle-on-Tyne	Sodas and chemicals	2,635,311 35	2,328,551 69	†306,759 66
Nottingham	Lace goods	8,467,304 18	7,137,796 16	†1,329,508 02
Plymouth	China clay	59,130 95	38,154 94	†20,976 01
Sheffield	Steel and cutlery	5,955,769 89	5,189,692 84	†766,077 05
Southampton	Live stock	43,938 87	34,532 49	†9,406 38
Tunstall	Earthenware	3,815,760 65	3,703,844 73	†111,915 92
		158,786,061 90	191,973,290 22	*36,802,212 08 †3,614,983 77

* Decrease. † Increase.

SUMMARY.

Total for year ending September 30, 1880	$191,973,290 22	Decrease in fourteen consulates	$36,802,212 08
Total for year ending September 30, 1881	158,786,061 90	Increase in eleven consulates	3,614,983 77
Net total decrease	33,187,228 31	Net total decrease	33,187,228 31

Statement showing value of declared exports from the various consular districts of the United Kingdom to the United States, from October 1, 1872, to September 30, 1881, compiled at the consulate-general, London.

BELFAST.

Year ending September 30—	
1873	$7,460,197 10
1874	7,737,266 18
1875	7,243,160 36
1876	6,244,088 77
1877	6,640,559 13
1878	6,243,226 62
1879	7,328,156 19
1880	9,415,832 81
1881	7,856,100 68
	66,168,587 84

BIRMINGHAM.

Year ending September 30—	
1873	$7,463,185 72
1874	5,778,957 84
1875	4,791,231 29
1876	3,135,234 92
1877	2,842,871 05
1878	2,309,513 42
1879	2,435,271 89
1880	4,920,433 58
1881	4,376,611 92
	38,053,311 63

BRADFORD.

Year ending September 30—	
1873	$15,900,091 72
1874	13,841,819 21
1875	11,629,262 15
1876	7,197,347 88
1877	7,311,101 75
1878	5,693,799 37
1879	5,955,287 85
1880	10,731,646 49
1871	7,091,394 18
	85,351,750 60

BRISTOL.

Year ending September 30—	
1873	$306,901 76
1874	305,863 06
1875	390,595 58
1876	217,427 57
1877	218,222 00
1878	166,648 20
1879	164,552 24
1880	157,177 01
1881	137,978 33
	2,065,365 75

CARDIFF.

Year ending September 30—	
1873	$4,411,124 39
1874	497,161 78
1875	445,730 44
1876	155,294 69
1877	102,271 70
1878	296,903 74
1879	607,331 57
1880	1,824,812 07
1881	2,148,560 56
	10,489,190 94

CORK.

Year ending September 30—	
1873	$147,571 32
1874	115,374 35
1875	80,159 58
1876	37,455 01
1877	40,845 71
1878	53,203 07
1879	83,016 01
1880	308,024 93
1881	179,255 02
	1,044,905 00

DUBLIN.

Year ending September 30—	
1873	$1,164,020 68
1874	928,900 81
1875	769,660 39
1876	639,550 65
1877	550,311 80
1878	583,162 66
1879	702,218 46
1880	1,029,415 77
1881	1,172,754 17
	7,539,995 39

DUNDEE.

Year ending September 30—	
1873	$7,094,321 53
1874	6,685,688 74
1875	5,999,913 37
1876	5,473,143 70
1877	4,825,588 12
1878	4,641,560 47
1879	5,112,470 82
1880	8,224,285 20
1881	7,381,189 83
	55,438,161 78

DUNFERMLINE.

Year ending September 30—	
1873, 1874, 1875, 1876, 1877	Hitherto an agency of the Leith consulate.
1878	$1,099,002 88
1879	1,443,045 32
1880	2,160,227 76
1881	1,889,286 45
	6,591,562 41

FALMOUTH.

Year ending September 30—	
1873	$54,052 30
1874	60,420 52
1875	57,487 85
1876	44,636 44
1877	53,451 77
1878	55,036 64
1879	67,253 47
1880	132,469 40
1881	76,517 79
	601,326 18

GLASGOW.

Year ending September 30—	
1873	$8,262,433 88
1874	6,377,818 61
1875	5,796,289 62
1876	5,101,128 94
1877	4,589,156 85
1878	4,249,000 00
1879	5,298,345 00
1880	9,219,927 88
1881	9,723,231 70
	58,617,332 48

GLOUCESTER.

Year ending September 30—

1873	Hitherto an agency of the Bristol consulate.
1874	
1875	
1876	
1877	
1878	
1879	
1880	$195,880 38
1881	256,572 62
	452,453 00

HULL.

Year ending September 30—

1873	Hitherto an agency of the Leeds consulate.
1874	
1875	
1876	
1877	
1878	
1879	$131,683 09
1880	547,247 23
1881	272,353 48
	951,283 80

LEEDS.

Year ending September 30—

1873	$4,868,277 08
1874	3,602,104 55
1875	3,626,535 43
1876	2,135,376 68
1877	1,704,327 58
1878	1,411,370 59
1879	1,556,965 96
1880	3,615,338 09
1881	2,839,801 07
	25,360,097 03

LEITH.

Year ending September 30—

1873	$2,996,418 26
1874	1,862,032 28
1875	2,294,385 65
1876	1,779,976 39
1877	1,671,257 79
1878	611,810 09
1879	368,939 12
1880	548,321 12
1881	587,578 90
	12,720,719 60

LIVERPOOL.

Year ending September 30—

1873	$36,095,983 86
1874	31,761,783 75
1875	27,307,312 61
1876	$22,947,802 20
1877	22,585,056 66
1878	19,084,235 15
1879	23,062,247 11
1880	42,589,566 16
1881	29,119,805 55
	254,583,793 05

LONDON.

Year ending September 30—

1873	$36,883,557 37
1874	29,402,080 24
1875	25,602,624 67
1876	20,509,669 26
1877	22,728,837 83
1878	19,416,581 34
1879	24,420,872.05
1880	62,681,120 18
1881	50,549,973 44
	292,195,316 42

LONDONDERRY.

Year ending September 30—

1873	$173,295 77
1874	50,757 47
1875	5,585 02
1876	6,248 07
1877	782 16
1878	1,797 66
1879	2,133 92
1880	2,610 03
1881	1,552 93
	244,763 03

MANCHESTER.

Year ending September 30—

1873	$21,978,696 48
1874	19,339,295 72
1875	18,139,681 27
1876	10,141,092 94
1877	9,876,768 09
1878	8,176,883 53
1879	8,814,443 92
1880	15,236,381 28
1881	12,148,327 29
	123,851,573 52

NEWCASTLE-ON-TYNE.

Year ending September 30—

1873	$3,259,780 96
1874	1,179,818 65
1875	835,181 00
1876	839,007 29
1877	640,836 16
1877	*107,863 09
1878	793,289 86
1879	1,018,306 44
1880	2,328,551 69
1881	2,635,311 35
	13,637,946 49

NOTTINGHAM.

Year ending September 30—	
1873 } 1874 } 1875 } 1876 } 1877 }	Hitherto an agency of the Sheffield consulate.
1878	$3,062,216 71
1879	4,421,233 42
1880	7,137,796 16
1881	8,467,304 18
	23,088,550 47

PLYMOUTH.

Year ending September 30—	
1873	$37,594 90
1874	22,038 70
1875	4,980 56
1876	1,620 26
1877	21,071 69
1878	21,473 92
1879	10,611 34
1880	38,154 94
1881	59,130 95
	216,677 26

SHEFFIELD.

Year ending September 30—	
1873	$14,197,614 72
1873	11,309,037 51
1875	7,725,718 08
1876	5,698,197 78
1877	5,720,331 20
1878	$2,140,443 49
1879	2,723,943 18
1880	5,189,692 84
1881	5,955,769 89
	60,660,748 69

SOUTHAMPTON.†

Year ending September 30—	
1873	$39,774 58
1874	17,662 67
1875	9,786 58
1876	20,653 69
1877	.....
1878	†44,536 28
1879	64,189 22
1880	34,532 49
1881	43,938 87
	275,074 38

TUNSTALL.

Year ending September 30—	
1873	$4,211,584 33
1874	2,913,201 94
1875	2,722,526 55
1876	2,568,707 12
1877	2,428,483 17
1878	2,604,681 77
1879	2,687,476 73
1880	3,703,844 73
1881	3,815,760 65
	27,656,267 00

SUMMARY.

Gross total for the year ending September 30—

1873	$177,006,478 72
1874	143,819,084 59
1875	125,477,808 06
1876	94,893,660 25
1877 { 94,552,132 21.75 *107,863 09.00	94,659,995 30
1878	82,760,380 46
1879	98,479,994 32
1880	191,973,290 22
1881	158,786,061 80
Gross total for the nine years ending September 30, 1881	1,167,856,753 75

*These figures represent the amount of exports from the Newcastle agencies, not embodied in the consular report of 1877.

†This amount represents the exports for the September quarter of 1878. Southampton having only at the commencement of that quarter been erected into a consulate, the four quarters of the year 1877 and the first three quarters of 1878 were embodied in the returns of the consulate-general at London, of which Southampton was during that period an agency.

RECAPITULATION FOR THE NINE YEARS ENDING SEPTEMBER 30, 1881.

London	$202,195,316 42	Dundee	$55,438,161 78
Liverpool	254,583,793 05	Birmingham	38,053,311 63
Manchester	123,851,573 52	Tunstall	27,656,267 00
Bradford	85,351,750 60	Leeds	25,360,097 03
Belfast	66,168,587 84	Nottingham*	23,088,550 47
Sheffield	60,660,748 69	Newcastle	13,637,946 49
Glasgow	58,617,332 48	Leith	12,720,719 60

Cardiff	$10,489,190 94	Gloucester ‡	$452,453 00
Dublin	7,539,995 39	Southampton	275,074 38
Dunfermline*	6,591,562 41	Londonderry	244,763 08
Bristol	2,065,365 75	Plymouth	216,677 26
Cork	1,044,905 00		
Hull †	951,283 80	Total	1,167,856,753 75
Falmouth	601,326 18		

* These figures represent only the declared value of exports for the four years ending 30th September, 1881, those forthe previous years being embodied in the reports from Sheffield and Leith, of which consulates Nottingham and Dunfermline had been agencies.

† These figures represent only the declared value of exports for the three years ending 30th September, 1881, those for the previous years being embodied in the reports from Leeds, of which consulate Hull has been an agency.

‡ These figures represent only the declared value of exports for the two years ending 30th September 1881, those for the previous years being embodied in the reports from Bristol, of which consulate Gloucester had been an agency.

RECAPITULATION FOR THE YEAR ENDING SEPTEMBER 30, 1881.

London	$50,549,973 44	Dunfermline	$1,889,286 45
iverpool	29,119,805 55	Dublin	1,172,754 17
Manchester	12,148,327 29	Leith	587,578 90
Glasgow	9,723,231 70	Hull	272,353 48
Nottingham	8,467,304 18	Gloucester	256,572 62
Belfast	7,856,100 68	Cork	179,255 02
Dundee	7,381,189 83	Bristol	137,978 33
Bradford	7,091,394 18	Falmouth	76,517 79
Sheffield	5,955,769 89	Plymouth	59,130 95
Birmingham	4,376,611 92	Southampton	43,938 87
Tunstall	3,815,760 65	Londonderry	1,552 93
Leeds	2,839,801 07		
Newcastle	2,635,311 35	Total	158,786,061 80
Cardiff	2,148,560 56		

Corrected statement showing the value of declared exports from the various consular districts of the United States in the United Kingdom of Great Britain and Ireland for the four quarters of the year ending September 30, 1879.

	Quarters ending—				Total for the year.
	December 31, 1878.	March 31, 1879.	June 30, 1879.	September 30, 1879.	
Belfast	$1,391,726 66	$2,322,455 82	$1,451,895 63	$2,162,078 08	$7,328,156 19
Birmingham	587,012 87	588,100 46	509,560 12	750,598 44	2,435,271 89
Bradford	920,385 45	1,496,388 30	1,021,141 94	2,517,372 16	5,955,287 85
Bristol	34,220 00	38,529 00	25,545 28	66,257 96	164,552 24
Cardiff	91,914 62	94,096 72	96,583 94	324,736 29	607,331 57
Cork	18,543 23	10,836 92	15,286 25	38,349 61	83,016 01
Dublin	177,565 84	162,338 24	180,787 65	181,586 73	702,218 46
Dundee	1,126,789 31	1,078,600 73	1,359,807 19	1,547,273 59	5,112,470 82
Dunfermline	318,781 46	470,287 75	180,074 87	473,901 24	1,443,045 32
Falmouth	15,478 25	12,457 24	19,048 66	20,269 32	67,253 47
Glasgow	1,119,875 00	1,190,783 00	1,203,586 00	1,784,101 00	5,298,345 00
Hull	21,101 48	31,261 46	32,619 72	46,700 43	131,683 09
Leeds	257,090 26	471,996 49	208,031 25	619,937 96	1,556,965 96
Leith	85,916 41	94,060 65	106,111 27	82,850 79	368,939 12
Liverpool	5,412,627 33	4,868,483 41	5,886,685 49	6,894,450 88	23,062,247 11
London	4,996,368 02	5,104,510 11	5,991,806 36	8,328,187 54	24,420,872 05
Londonderry	730 89	268 97	585 44	548 62	2,133 92
Manchester	1,661,305 95	2,388,516 75	7,657,795 55	3,106,825 67	8,814,443 92
Newcastle	236,300 03	243,586 02	214,186 12	324,234 27	1,018,306 44
Nottingham	725,653 82	1,372,022 11	797,129 30	1,526,428 19	4,421,233 42
Plymouth	nil.	nil.	8,406 40	2,204 94	10,611 34
Sheffield	586,829 40	512,510 07	698,093 44	926,510 27	2,723,943 18
Southampton	26,190 92	29,121 64	4,550 51	4,326 15	64,189 22
Tunstall	511,828 78	749,739 79	636,993 56	788,914 60	2,687,476 73
Total	20,324,085 98	23,330,951 65	22,306,311 94	32,518,644 73	98,479,994 32

Statement showing the value of declared exports at the various consular districts of the United States in the United Kingdom, for the four quarters of the year ending September 30, 1880, and compared with the corresponding quarter of the previous year.

	Quarters ending—				Total for the year.
	December 31, 1879.	March 31, 1880.	June 30, 1880.	September 30, 1880.	
Belfast	$2,327,062 38	$3,654,841 51	$1,659,599 75	$1,774,329 17	$9,415,832 81
Birmingham	960,459 53	1,444,161 20	1,346,255 16	1,169,557 69	4,920,433 58
Bradford	2,205,043 84	3,159 773 31	3,097,469 32	2,269,360 02	10,731,646 49
Bristol	45,142 29	43,172 72	36,837 96	32,024 04	157,177 01
Cardiff	280,121 20	413,168 29	782,552 33	348,970 25	1,824,812 07
Cork	71,803 55	113,589 33	78,677 26	43,954 79	308,024 93
Dublin	278,755 27	272,252 16	261,494 72	216,913 62	1,029,415 77
Dundee	1,901,676 63	2,605,838 98	1,810,554 45	1,906,215 14	8,224,285 20
Dunfermline	493,224 51	650,351 56	404,116 75	612,534 94	2,160,227 76
Falmouth	15,696 89	20,135 57	84,964 39	11,672 55	132,469 40
Glasgow	2,404,609 46	2,814,554 20	2,150,612 77	1,850,151 45	9,219,927 88
Gloucester	31,108 64	51,995 46	22,475 00	90,301 28	195,880 38
Hull	352,787 84	95,725 82	67,840 76	30,892 81	547,247 23
Leeds	489,552 16	1,172,201 83	903,094 41	1,050,489 69	3,615,338 09
Leith	103,394 85	148,602 62	156,785 67	139,537 98	548,321 12
Liverpool	12,134,937 42	13,030,389 53	10,020,798 83	7,403,440 38	42,589,566 16
London	16,131,437 29	17,897,121 42	17,037,919 62	11,614,641 83	62,681,120 18
Londonderry	390 69	1,869 02	nil.	350 32	2,610 03
Manchester	2,764,904.50	4,620,370 73	3,772,992 29	4,078,113 76	15,236,381 28
Newcastle	459,757 08	741,795 77	673,511 36	453,487 48	2,328,551 69
Nottingham	1,116,485 72	2,604,282 84	1,467,937 61	1,949,090 49	7,137,796 16
Plymouth	17,415 84	6,319 44	4,626 45	9,793 21	38,154 94
Sheffield	1,131,828 48	1,131,451 56	1,418,872 21	1,507,540 59	5,189,692 84
Southampton	2,001 87	1,939 13	19,359 79	11,231 70	34,532 49
Tunstall	835,897 83	948,966 66	913,785 50	1,005,194 74	3,703,844 73
Totals	46,555,495 76	57,644,870 16	48,193,134 36	39,579,789 92	191,973,290 22

December 31, 1879	$46,555,495 76
December 31, 1878	20,324,085 98
Increase	26,231,409 77
March 31, 1880	57,644,870 16
March 31, 1879	23,330,951 65
Increase	34,313,918 51
June 30, 1880	48,193,134 36
June 30, 1879	22,306,311 94
Increase	25,886,822 41
September 30, 1880	39,579,789 92
September 30, 1879	32,518,644 73
Increase	7,061,145 18

Increases:

December quarter	$26,231,409 77. 84,	or more than 129 per cent.
March quarter	34,313,918 51. 44,	or more than 147 per cent.
June quarter	25,886,822 41. 78,	or more than 116 per cent.
September quarter	7,061,145 18. 99,	or more than 21¼ per cent.
Net total increase for year ending September 30, 1880.	93,493,295 90. 05,	or nearly 95 per cent.

IRISH AND AMERICAN TRADE IN IRELAND.

REPORT, BY CONSUL BROOKS, OF CORK, ON THE CONDITION OF SOUTHERN IRELAND, AND AMERICAN TRADE THEREIN.

The condition of Ireland, and especially the southern portion of the island, over which this consular jurisdiction extends, during the year in question has presented many incongruous illustrations of success and disaster.

In all respects those agriculturists who have devoted themselves to a proper care of their pursuits have reaped abundant harvests, and have realized fair prices for their products. On the other hand, it is apparent that numbers have not given due attention to their farming affairs, and have suffered in consequence. Among those engaged in commercial enterprises great complaints, and well-founded complaints, are heard that business in all its branches has fallen off to a considerable extent, even as compared with the condition of the same lines during the "famine-distress" of 1879–'80. This situation is directly attributable to the political unrest of the country, and to violent political agitations growing out of the desire of the people for really needed reforms. And the outlook even now, after an attempt has been made by Parliament to inaugurate those reforms, does not promise an abatement of this unrest and agitation.

AMERICAN SUPPLIES.

However, so far as the interests of the United States are concerned, they are only affected disadvantageously by this continued political disturbance proportionately with the slightly and temporarily decreased demand for American supplies occasioned by prevailing business stagnation. They are also affected the same way by the increased agricultural yield to the extent that Irish farmers are better able now than they have been for several years past to meet the requirements of home consumption.

Nevertheless, American products of all kinds continue to find their way into the Irish markets via the roundabout methods of Liverpool or Glasgow or other English or Scotch importations. In short, trade between the United States and Ireland is constantly and naturally increasing despite the indirect and tortuous channels of traffic, despite all political agitation, and despite the handicapping it suffers from the absence of direct transportation between the two countries.

IRISH AND AMERICAN COMPETITION.

It is perhaps a fortunate thing for the farming classes generally in Ireland that this absence of direct transportation exists. At the same time the masses of the people have good reason to complain of its absence. This conflict of interest is at once explained when it is understood that even under the most favorable circumstances the Irish farmer would not be able to compete with the average American farmer in the cheapness of his products, and that so long as the products of the latter are weighted in the market by the cost of transportation via England and Scotland, the former enjoys a wider margin for profit in the competition between the two countries than he otherwise could. But that margin is paid for by the non-agricultural consumer, and whatever the Irish farmer gains by it, small as his gains may be in the uneven contest, comes out of the pockets of the bread-consuming masses. So true are these facts, and so thoroughly understood are they and feared, that Irish agriculturists frequently exhibit unqualified jealousy, amounting almost to enmity, toward the United States and all efforts for the increase of American traffic facilities. It is also true that much of the agitation in behalf of cheap rents for farming lands has for its basis the inability of the Irish tiller of the soil to hold his own against the incursions at his own doors of foreign enterprise.

IRISH HOME MANUFACTURES.

It is not improbable that some future historical analysis of the present situation in Ireland will trace the greater portion of the discontent now

existing to the fact that with the rapid development of American resources, and the consequent invasion of foreign markets by American products, not only have the Irish farmers suffered, but Irish industries of all kinds have been sadly crippled. Estimates are frequently made of the large sums of money annually taken from Ireland by non-residents, landlords, and other absentee capitalists, but large as those amounts are they are possibly equaled by the sums paid in these markets each year for articles of foreign production and manufacture. In due course this prolonged drainage has had its legitimate and unfortunate effect. In other words, the people have been more or less impoverished in an unequal struggle against a combination of misfortune. But they have by no means lost heart and hope. Latterly, and collaterally with the land league movement, they have started a scheme for the encouragement of home manufactures and the revival of long-abandoned industries. A considerable and rapidly increasing sum of money has been subscribed in aid of this enterprise, and it is proposed that it shall reach a practical culmination in the form of an Irish National Home Industrial Exhibition to be held in Dublin in 1882. How successful this effort will be and how far or in what respect it will affect the interests of the United States, remains to be seen. It is the opinion, however, of shrewd observers that too much politics will be the death of it. This opinion rests, possibly, upon the assumption that very few practical business men have thus far done anything more than subscribe to the exhibition fund, while the preliminary management of the movement has been taken in hand by the politicians. In my humble judgment it will not result in the ostracism or "boycotting" of cheap goods, no matter from whence they may come, so that they are as cheap and as substantial as "home articles" of the same class. A protective tariff asserted by positive law will never prevent people from buying in cheap markets, and certainly a protective ostracism sustained only by impulsive sentiment, however patriotic its inspiration, will not keep them from doing the same.

ADVERTISING AMERICAN MANUFACTURES.

In this connection I wish to repeat, with emphasis, a suggestion submitted from this consulate some time ago, in effect, that American products and manufactures are not so thoroughly and effectively advertised on this side of the world as they should be. The present customary method of advertising is in the columns of special journals or periodicals devoted to foreign trade and commerce. I would not be understood to say anything against this method, for it has produced most satisfactory results. In fact the present foreign trade of the United States has been largely built up through this medium. These journals reach every corner of the globe, and are read and reread by people of all classes. This I know from personal observation, for of the large number of periodicals of the kind received at this consulate none are ever retained from the date of one issue until the next, so eager are the people for the information they contain regarding new inventions, &c. But this system should be supplemented by subsidies to the local press; also by the free distribution of descriptive pamphlets, and by means of paid agents and lecturers. To do this extensively and properly would require the conjoint action of large interests, as, for example, the boards of trade or commerce in their national organizations or in the combination of several large manufacturing firms. The effectiveness of local advertising has been fully exemplified in the successful introduction of American clocks and watches throughout this side of the Atlantic. But the

aggregation of great interests in such an effort would serve the purposes of economy, and if such a combination could be made whereby hundreds of thousands of dollars could be raised to sustain it, individual subscribers would not fail to realize bountiful returns from the moiety of their subscriptions. To fairly flood all Europe with pamphlets descriptive of half a dozen or more different articles of manufacture would not require the expenditure of too much money, and would give to those articles the prominence and popularity in these markets now enjoyed only by familiar local productions. Aside from the watchmakers at Waltham, I believe the only manufacturers at home who have attempted this wholesale style of advertising have been the sewing-machine companies, and the result is that American sewing-machines are to be found here as frequently as in the United States. Why should not the wagon and carriage makers, or other manufacturers, do the same?

I venture to commend this suggestion especially to the tobacco manufacturers, including cigar-makers, of the United States, and at the same time beg to direct their attention to the fact set forth in my last annual report, that much of the American tobacco used here is from the raw leaf previously imported from the United States into Germany, and manufactured there for the particular object of supplying these markets; that is to say, German tobacco manufacturers are engaged in a profitable trade in the American weed—a trade which shrewd Americans will at once perceive can be retained at home.

IRISH MANUFACTURES PROPER.

In point of fact, Ireland is an agricultural or grazing country, and the Irish people, as a whole, are not naturally given to mechanical or manufacturing pursuits. Nevertheless, aside from the large linen factories in the Belfast district, there are a few in this region, all of which do a thriving business. Flax-mills near Cork, tweed factories at Blarney, freize factories at Kilmacthomas, and the Mayfield spinning mills are the most notable of their kind. Besides these there is a manufactory of down goods at Cork, several whisky distilleries, and establishments for the grinding and especial preparation of fertilizers. The linen factories send all descriptions of linen cloth, from the coarsest toweling to the finest handkerchief goods, mainly to England and Scotland, from whence it finds its way to the United States. The tweed and freize goods go through the same channel, but the whisky is "invoiced" here and consigned to American customers via the New York and Liverpool transatlantic steamship lines. The guano is principally manufactured for home use, although one cargo of phosphate from Bull River, South Carolina, after having been subjected to some peculiar process, was reshipped this year, as an experiment, back to the United States.

IRISH PRODUCTS GENERALLY.

Butter, cheese, hams, bacon, live stock, hay, oats, wheat, barley, hides, and feathers comprise, in addition to the above-enumerated manufactures and aerated waters, the sum total of Irish products for exportation. In all of these articles, with the exception of pork, hides, feathers and aerated waters, Ireland finds a successful competitor in the United States. The figures, elsewhere referred to, show a material decrease in the aggregate of these exports during the past year. This fact plainly sustains the assertion that business has fallen off during the period in question.

AMERICAN MEATS.

As of other exports from the United States, the same may be said of all kinds of American meats, that they only reach Ireland after having passed through the hands of English or Scotch importers. But the consumption of them is constantly increasing. American fresh meat, when it is attainable, is in fact preferred to the native article. But American hams and bacon are not held in such high favor. They are sold cheaper than the native product, and are therefore in more common use. In fact, it is not an unusual thing that farmers here sell their own pork and buy American swine-meat for their own use, realizing a small profit by the transaction. The reason for this preference is to be found in the difference of methods in curing as well as in fattening. Too much of the American pork sent over here is of the poorer quality, made from hogs fattened in droves, cured by some wholesale process, and not so carefully prepared as it is the custom to prepare pork here, where small farmers having only a few swine to fatten and slaughter are enabled to attend particularly to old-fashioned systems of salting and smoking. But the American hog is triumphant withal!

As to canned meats—"tinned" they are called here—so much has been written about them that it is only necessary to admonish American dealers not to send anything except first-class goods. Both France and Germany, and especially Switzerland, compete with the United States in supplying them to these markets.

AMERICAN BUTTER AND CHEESE.

It is not to be expected that American butter will ever gain much of a foothold in Ireland, where butter making seems to be one of the chief acquirements in every rural household. Besides, the people here use fresh or unsalted butter almost exclusively. The salted butter, such as Americans are accustomed to, is called "corned-butter" here, and is, perhaps, better suited to the warm climate of the United States than fresh butter would be. The climate here, though subject to sudden changes, is so equally temperate that butter "keeps" well even in mid-summer without curing or salting, which fact possibly accounts for the custom of using it fresh. But American butter asserts itself in competition with the Irish article in the English markets; and American cheese finds ready sale here as well as in England. It is not on the average, however, rated as high as the English Wiltshire, and from close observation I am inclined to the belief that the better grades of cheese are retained for sale in the United States and that only the inferior qualities are sent over here.

AMERICAN SECURITIES.

The redemption of outstanding United States Treasury bonds and the refunding process served to bring to this consulate quite a number of bondholders during the year who were so unfortunate as to hold "called bonds." As a rule these investors were disinclined to continue their investments at the lower rate of interest offered. They were one and all, however, anxious to find some American stock or funds in which to invest. In fact this class of capitalists, although comparatively small in Ireland, has been so well treated and so promptly paid by the United States Government that they parted with their bonds with regret.

SANITARY CONDITION.

It is worthy of note that of the large number of emigrants from Ireland to the United States very few leave these shores suffering from disease. Of the more than 100,000 who have sailed from this port since I have been at this consulate not one has died at sea, and the general health of the entire number has been the occasion of frequent remark by every one who may have had reason to look into the subject. One reason for this fortunate sanitary fact is that the majority of the emigrants have been young men and women, but another and more effective reason resides in the healthfulness of the climate. Damp as it too often is for the comfort of the unacclimated American, there is no doubt that it is more evenly temperate in the southern part of the island than that of any portion of the United States. The well known influence of the Gulf Stream upon the Irish coast accounts for this and serves to protect the people here from extremes of temperature which would otherwise prove destructive to bodily comfort, if not to health and life itself. This subject is, perhaps, entitled to more than cursory attention, and I venture to recommend it to the sanitarians of the United States simply because I am firmly convinced that despite many drawbacks and a disagreeable absence of American ways of living, the south of Ireland will one day become a desirably popular resort for certain classes of American invalids. Among those classes I may mention sufferers from indigestion or chronic dyspepsia or weak lungs. Remarkable as it may seem, the average temperature at Queenstown is 52° Fahrenheit, the thermometer seldom rising higher than 70° in the hottest summer day. This genial warmth does not provoke rapid decay of vegetation, and the presence of tannin in the fresh (stagnant) water bogs aids in the natural absorption of miasma by the salt sea air which sweeps uninterruptedly across the entire island. The result is a healthy absence of malaria in the atmosphere and that malarial fevers are almost unknown.

AGRICULTURAL STATISTICS.

Reverting to statistical or business affairs, another strange exhibit, in view of the prevalent business depression, shows itself in the increase of the number of acres of land under crops in 1881 over that of 1880. The statistics show that this year there have been 5,191,361 acres under crops, an increase of 110,277 acres over 1880. In 1880 the extent returned under grass was 10,259,108 acres; this year the total acreage of grass lands in given at 10,091,688 acres, a decrease of 167,420. The same figures show a decrease of the extent covered by woods or forests of about 10,000 acres, which, combined with the grass lands, more than makes up for the increase of croppage. The general summary of cereal, green, or root crops, and meadow or clover land for both years is given as follows:

	1880.	1881.
	Acres.	*Acres.*
Cereals	1,766,477	1,766,877
Green or root crop	1,247,242	1,268,997
Flax	157,540	147,058
Total	3,171,259	3,192,959
Meadow and clover	1,909,825	1,998,402

A close analysis of the returns shows an increase in the year 1881 of 5,301 acres of wheat, 10,437 acres of oats, and 33,643 acres of potatoes; and a decrease of 7,868 acres of barley; also a decrease of 7,460 acres of turnips; also a decrease of 7,858 acres of cabbage, and, lastly, a decrease of 10,455 acres of flax.

The returns relating to live stock show that in 1880 there were 582,130 horses and mules on the island, and in 1881 there were 573,980, a decrease of 8,150. They also show that in 1880 there were 3,562,463 sheep, while in 1881 there were only 3,258,533, a decrease of 303,880.

In other respects the live-stock returns show an increase in 1881 of 1,029 asses, 32,962 cattle, 237,772 pigs, 764 goats, and 535,578 head of poultry.

The tables show, however, that there is an increase in the number of mules amounting to 1,417, which indicates that the real decrease under the head of horses and mules is of horses alone, divided as follows: Of horses used for agricultural purposes, 2,825; for amusement and recreation, 80; of young horses one year old and under two, 5,071; and of colts under one year old, 2,264.

It would be difficult, indeed, to explain the apparent discrepancies disclosed by these figures between the two years in question; but it is not unreasonable to assume that the decrease in the growth of flax was caused by the falling off in the linen trade, a falling off to be accounted for in part by increased popularity of cotton goods, as well as by the introduction of foreign linen in the Irish market. I am aware that this explanation will meet with criticism, and perhaps with contradiction; but I am prepared to prove that American linen, such as light duck, for vestings, can be purchased in Cork at rates which enable it to compete favorably with the Irish fabric.

The decrease in horses would seem to indicate that the hitherto popular business of horse-breeding, for which Ireland has been somewhat noted, is now being partially abandoned. The reason for this abandonment is, perhaps, inexplicable.

The decrease in sheep is readily explained on the ground of successful American and Australian competition in supplying the English markets with mutton.

EMIGRATION.

The number of emigrants from all Ireland to the United States during the year, will, of course, be reported in due time. The number sailing from Queenstown, the port of Cork, was as follows: October, 1880, 2,496; November, 1880, 1,103; December, 1880, 402; January, 1881, 204; February, 1881, 574; March, 1881, 2,029; April, 1881, 7,178; May, 1881, 8,211; June, 1881, 4,262; July, 1881, 2,361; August, 1881, 2,245; September, 1881, 2,160. Total, 26,304.

The fluctuation in the numbers is readily explained. The summer months, of course, present advantages for the voyage; but it is a noteworthy fact that the heaviest immigration occurred on or about the dates that farm rents fell due, or that the harvests had been gathered. It is among the certainties of the future that this exodus will continue for several years to come.

OTHER STATISTICAL RETURNS.

As regards other statistical returns required by paragraph 555, I have to report that the same difficulties which presented themselves last year are now extant to prevent me from obtaining them. I have applied for

them and have been assured that in due course they will be sent to me. Until they are received I shall not attempt to make estimates, preferring to await the official figures. However, it is not to be expected that when they do arrive they will give anything more than an approximate return of the imports and exports of this port, for the reason that, as previously explained, Cork is, in fact, a coastwise port, engaged more in coastwise trade with England and Scotland than in direct foreign traffic. Open as the port is to the North Atlantic, and magnificent as its harbor is in facilities for accommodating a North Atlantic trade, it is really only a transient stoppage place en route for the transatlantic steamship lines plying between the United States and Great Britain. For this reason, as set forth in my last annual report, the records of the custom-house here do not show the exact export and import trade of the port.

GENERAL RECOMMENDATIONS.

I venture the rather broad assertion that every conceivable household, agricultural, and mechanical invention or contrivance, now in popular use in the United States, could find sale here under proper circumstances, from a clothes-wringer to a thrashing-machine, or a fire-bellows to a lawn-mower. The same remark will apply as well to apples and fresh fruits of all kinds, including melons, peaches, and grapes, and, also, to dried fruits. The idea I wish to convey to intending traders is that an American-made pitch-fork or mouse-trap, a pair of shoes or a box of starch, a canteloupe or a bag of peanuts, or almost anything else, would find sale here if properly placed upon the market. In short, and the shorter way to convey a due impression of the requirements of these markets would be to give a list of things not wanted in Ireland from America, as follows:

THINGS NOT WANTED IN IRELAND.

Whisky,	Millinery goods,	Raw flax,
Wool,	Expensive clothing,	Poultry,
Woolen goods,	Printed books,	Burthen animals,
Ale,	Aerated waters,	Carpet goods,
Porter,	Hides, skins, and kips,	Cheap hats and caps,
Beer,	Sausage casings,	Root crops.

Every other natural product or manufacture of the United States—everything not included in the foregoing list—even from plumbers' inventions down or up to saddles or harness, is in demand here.

EXPORTS TO THE UNITED STATES.

The continued decrease of exports from Ireland to the United States since September 30, 1880, up to the present date, was noted in a dispatch sent from this consulate in March last, very soon after the Land League assumed vicarious control of affairs here; and now this decrease presents another perplexity, inasmuch as it is a decrease simply of exports, unaccompanied by a decrease (except in flax) of the production of exportable goods. The total falling off for the year, as compared with the same return for 1880, is shown by Form D, herewith inclosed, and marked Return No. 3, to be $128,761.91 from this port alone.

The only new article of export exhibited is the experimental cargo of manipulated Bull River phosphate, above referred to.

Among the list will be found "sausage casings," the trade in which

has only recently sprung up. It is a peculiar product intended for the especial use indicated by the name. The exporter claims for it an advantage over the American article, insisting that the intestines of Irish sheep, from which it is made, are stronger and tougher than those of any other sheep, and that for that reason they are better calculated for use as casings for smoked and dried sausages than any other.

The return shows the following items of decrease for the year from the port of Cork:

The decrease in hides was from shipments valued at $130,543.36 in 1880 to $65,386.98 in 1881—$65,156.38; nearly 50 per cent.

The decrease in wool was from shipments valued at $41,118.30 in 1880 to $3,037.25 in 1881; a falling off of $38,081.05.

The decrease in calf-skins was from shipments valued at $43,311.58 in 1880 to $12,927.34 in 1881; a falling off of $9,384.24.

Besides these items of decrease there appears an utter absence of exportations this year of articles exported last year as follows: Linen goods, leather, sheep-pelts, horses' hides, rags, rose bushes, and old iron.

The items of increase are as follows: Of feathers from $35,470.12 in 1880 to $46,805.97; of kip-skins from $1,285.54 in 1880 to $7,753.96 in 1881; of whisky from $9,677.52 in 1880 to $13,166.65 in 1881; of goat-skins from $5,199.05 in 1880 to $7,397.08 in 1881; of asses' skins from $437.98 in 1880 to $2,094.96 in 1881; and in cotton goods (chintz or sateen and down goods) from $808.68 in 1880 to $867.07 in 1881.

It is worthy of note that the last-mentioned export, chintz and sateen or cotton goods, is an article composed in part of American cotton cloth or calico of superior quality, made into bedquilts, dressing gowns, skirts, &c., filled with Irish down.

The small item of cutlery shipped was a kit of "dressing tools" intended for the use of sheep-butchers.

E. P. BROOKS,
Consul.

UNITED STATES CONSULATE,
Cork, Ireland.

Statement showing the value of declared exports from the consular district of Cork to the United States during the four quarters of the year ending September 30, 1881.

Articles.	Quarters ending—				Total for the year.
	December 31, 1880.	March 31, 1880.	June 30, 1881.	September 30, 1881.	
Asses' skins			$2,094 96		$2,094 96
Calf-skins	$2,842 03	$216 06	5,034 39	$4,834 86	12,927 34
Cotton goods				868 07	868 07
Cutlery			59 85		59 85
Feathers	8,565 04		22,901 72	15,339 21	46,805 97
Goat-skins		486 65	6,910 43		7,397 08
Hides	15,509 78	24,824 94	16,150 53	8,901 73	65,386 98
Kips	1,080 35	2,372 44	648 14	3,653 03	7,753 96
Phosphate		17,336 90			17,336 90
Sausage casings	875 96	437 98			1,313 94
Whisky	7,600 60	1,027 58	593 82	3,944 65	13,166 65
Wool				3,037 25	3,037 25
Woolen goods			282 04	824 03	1,106 07
Total in United States gold	36,473 76	46,702 55	54,675 88	41,402 83	179,255 02
Total for the preceding year	71,803 55	113,589 33	78,677 26	43,954 79	308,024 93
Decrease	35,329 79	66,886 78	24,001 38	2,551 96	128,769 91

AMERICAN TRADE IN SCOTLAND.

REPORT BY CONSUL WINTER, OF DUNDEE.

As in former years, there has during the past year been received at this office a number of letters from United States manufacturers and merchants in every variety of articles, requesting the names of firms or parties in this consular district likely to become purchasers of their goods. As showing the class of these correspondents, it may be mentioned that communications have been received from manufacturers of machinery, sewing-machines, engines, engine furnishings, hardware, goods of all kinds, fancy stationery, agricultural implements, jewelry, fire-arms, printing machinery, wood-working machinery, furniture, cotton striped shirtings, musical instruments; also from produce dealers, timber merchants, &c. All this correspondence has been very fully and courteously replied to by giving not only the names asked for, but also reporting on the commercial standing of the parties recommended. Information regarding the best routes and means of transporting United States goods to Dundee, as to freights, railway rates, &c., together with such suggestions as might be considered useful, were also supplied. Accompanying many of these letters were circulars, catalogues, or price-lists; these were all distributed amongst those merchants and others who it was thought might be induced to do business with the firms to which these advertisements related. Samples of different articles have been also sent here to be delivered to merchants and were carefully attended to. Indeed, everything has been done at this office as far as possible calculated to advance the commercial interest of the United States. There can be no doubt, however, that if some of the suggestions thrown out from this office to the different correspondents named had been acted upon, that a larger sale of United States goods would have been taking place in Dundee. For instance very old and substantial firms in different lines have been recommended to act as agents here for United States manufacturers and merchants anxious to extend their connection to Dundee. These influential firms would have agreed to represent American houses if they had only been sent a small consignment of goods on trial or for approbation. It was hardly to be expected that they would undertake the trouble and risk of introducing United States goods into Dundee. But they would have been glad to have tried to do this for their own interest if they had been so supplied, although they would not venture to buy outright to commence such a trade.

Now, it is not known that any of these correspondents have had the courage to attempt this method of giving the public in this large town an opportunity of seeing their wares, and so being convinced of their superiority to English-made goods, especially in that of edge tools and certain kinds of hardware. A manufacturer of celluloid goods refused even to consign the paltry sum of $50 worth to a highly respectable firm, who wished to test this trade. This reluctance to venture is all the more to be wondered at, considering the reliable consular reports furnished regarding any parties recommended, who, in all cases, are wealthy firms in the best credit. This extreme hesitation in these circumstances is certainly not commendable. An example ought to be taken from the bold and fearless manner in which British traders prosecute their business in opening up connections in new fields, and gener-

ally without getting the benefit of a confidential report from their consuls abroad about their customers. United States manufacturers and merchants have been far too frightened to send on parcels of their goods for sale on consignment by responsible firms here. "Never venture never gain" is an old maxim, and it ought to have been recollected that the venture in this case was as much as possible minimized by being in possession of a consular report which was entitled to some trust, and which might have been taken as a guarantee for faith, and so stimulated enterprise. In order, therefore, to promote and further the extension of United States commerce, the consideration of this matter is urged upon our manufacturers and merchants. A reckless and careless system of consigning goods is not advocated. But a judicious export of articles to the care of responsible dealers, willing to act as agents in the way suggested, and who are confidentially recommended as being trustworthy, ought to be tried. If these agents found, as doubtless they would find out, that United States goods would sell freely and profitably, it might be depended upon that they would soon cease to seek goods on consignment, but would rather buy for their own account. A better or more sufficient basis to guide merchants in this respect could not be had than a reliable private consular report, which can always be got. Notwithstanding all this, it is pleasing to have to mention that the consumption of United States produce and the sale of manufactured articles are steadily increasing in Dundee. Flour, provisions, and fruits are being used in larger quantities every year. Agricultural implements of all kinds, but (more especially the lighter tools) American clocks and watches, cottons, rubber goods, edge tools, hardware, scales and balances, tobaccos, sewing-machines, lawn-mowers, baby carriages, stationery, &c., are regularly sold and kept in stock by the principal dealers in these articles in this town. One store makes a capital exhibit of edge tools and small agricultural and gardening implements. What is desired is that some dealer ought to make a specialty of dealing in nothing else but United States articles, as is the case by the American factors in Glasgow. If, therefore, American manufacturers would encourage some trustworthy agent to make this his sole business, they would reap the benefits of such a practical advertisement, and their goods would certainly come into more general use.

It need not be observed that in carrying out this plan articles sent would require to be of the best quality and superior finish; this last is very essential. Further, moderate profits would only have to be looked for to commence with; perhaps occasionally a sacrifice would have to be made in some things to get a start. This, it is well known, is the principle on which the new Dundee houses in the jute trade work in opening up a branch in the United States. In fact, this is characteristic of British traders everywhere, and accounts greatly for their ultimate success in permanently establishing their business. Nothing further is necessary to be added here beyond the statement that the machinery of this office is at all times at the service of United States manufacturers or merchants in any manner whatever, either by furnishing them with the best knowledge obtainable regarding parties inquired about, or by having samples exhibited or delivered along with price-lists according to directions given.

UNITED STATES COMMERCIAL, SCIENTIFIC, AND LITERARY JOURNALS

are regularly sent by their publishers to this office. The names of these papers are, The American Exporter, The American Mail and Export

Journal, The Exporter and Importer, The American Manufacturer and Exporter, The Iron World, The Foreign Mail, The American Export Register, The Industrial Monthly and Commercial and Statistical Review, The Mechanic, and The Scientific American, which are all kept on file at this office for the perusal of exporters to the United States here. As has been observed before, these journals are undoubtedly most valuable in promoting the extension of American commerce and diffusing commercial and scientific knowledge from the information rendered by their numerous advertisements and general letter press.

UNITED STATES GRAIN IMPORTED DIRECT INTO DUNDEE.

During 1880, 15 vessels, of 8,156 tons, arrived in Dundee from the United States, bringing 54,098 quarters of grain. This shows a decrease compared with 1879 of 3 vessels, or 571 tons and 4,834 quarters. This year it is understood that the slight deficiency of imports in 1880 will be more than balanced by an increase. The trade looks exceedingly promising.

FRESH BEEF AND MUTTON FROM THE UNITED STATES

is slowly but steadily and surely rising in favor here. One fact in connection with this trade is singular, viz, that it is the middle classes that are the chief consumers of the article. This may be partly accounted for in this way: There is only one shop, and it is in the center of this large town, and which is a part not so thickly populated as it was a few years ago, so a large number of the poorer people would have to walk a considerable distance to get American fresh meat. The better class overcome this inconvenience by giving their orders (often per postal card) for large cuts, which are delivered at their residences. Still it is admitted that this class are the principal purchasers; possibly they pay more attention to the cooking than the humbler people; and if so they will feel all the more satisfied with the article. This beef shop is large and airy, and suitably got up for the business. It has been kept open all summer, and not a pound of meat has been lost by giving way, so well has it been managed. It is said the meat even keeps better than home killed, which goes quicker wrong at the bone, the worst place. The outside of the United States meat is the first to show symptoms of deterioration, and of course can be more guarded against. All the meat sold in Dundee still comes through Glasgow, as the steamers trading between this port and New York are not adapted for its conveyance.

The following table shows the price of butcher meat sold in Dundee (Scotland), on the 30th September, 1881:

Description.		United States fed meat.	Scotch fed meat.
Roast beef	per pound	8*d.* (16 cents.)	1*s.* (24 cents.)
Boiling beef	do	6*d.* (12 cents.)	10*d.* (20 cents.)
Stewing beef	do	8*d.* (16 cents.)	1*s.* (24 cents.)
Steak	do	10*d.* (20 cents.)	1*s.* 2*d.* (28 cents.)
Mutton	do	7*d.* (14 cents.)	9*d.* (18 cents.)
Mince and sausages	do	6*d.* (12 cents.)	8½*d.* (17 cents.)

It may be here noticed that about one hundred picked cattle from this county and Aberdeenshire have left Dundee, per steamer, direct for the United States, to be there used for breeding purposes.

UNITED STATES CANNED MEAT

is largely consumed by the laboring classes, and is with them deservedly popular. Undoubtedly the great sale of this article has been more effective than the transportation of United States fresh meat in keeping down the prices of Scotch fed beef. This trade is now thoroughly established in Dundee, and is increasing year by year. Large importers of this article feel it a grievance that the custom-house officers pierce so many of their cans to test whether they contain contraband or dutiable goods, such as tobacco, &c. These officers have the power to inspect one out of every five cans, and although they do not exercise their full right, yet it is said they pierce with a long rapier a number of cans out of every shipment, and this causes sometimes considerable loss to the importer, for unless he gets these pierced cans at once disposed of they will quickly give way, because of the air having got into the meat. The cans cannot again be soldered up, but must as soon as possible be used. Accordingly, sometimes importers have to sell these partially-destroyed cans at a loss. It has been stated that it would be well to have agents devoting their sole time to the sale of United States specialties. Well, the marked success of this trade is an evidence in support of that idea, as the gentleman who is the sole agent for the sale of United States canned meat in this district only sells it and United States canned salmon and lobsters, United States canned fruits, and United States hams. In 2-pound cans, this meat is retailed at, for roast, 25 cents; corned, 25 cents, and compressed, 32 cents per can. Large cans of compressed are sold at 14 cents per pound, in small quantities. Ox tongues and soups of different kinds prepared in the United States are also selling freely in Dundee.

CANNED SALMON, LOBSTERS, AND OTHER FISH FROM THE UNITED STATES.

Everybody now buys canned salmon. Lobsters are not so well liked, but there is certainly a large demand for the salmon. The only chance poor people, or those with a modest income, have of tasting salmon is to purchase United States canned. Fancy paying 48 to 60 cents per pound for fresh salmon caught in the river Tay flowing past Dundee, the most celebrated stream in Scotland. The land-owners whose estates border the river get large sums as rental for the privilege of fishing opposite their land. The salmon, however, have been so scarce this year that these proprietors have had several meetings with the view of fixing a longer close time for the fishing. A 1-pound can of salmon or lobster (United States) can be had retail in Dundee for 14 cents, and in some stores they are labeled 6½*d.* (13 cents).

UNITED STATES CANNED FRUIT.

This article, like the United States fresh beef, is chiefly used by the middle classes, with whom it finds a ready sale, which goes on increasing. The poorer classes here cannot afford luxuries, however cheap; for that reason they do not purchase much of this fruit, which may be had retail, for tinned apples, 30 cents per 7-pound can, and 15 cents per 2½-pound can; peaches, 30 cents per 7-pound can, and 24 cents per 3-pound can; and tomatoes, 15 cents per 2½-pound can.

UNITED STATES GENERAL PRODUCE.

The wholesale prices are for flour, $7 per barrel; ham (cured in Leith, Scotland), $16.25 per 112 pounds; cheese, $15 per 112 pounds; butter, $35 per 112 pounds; pearl hominy, in 5-pound bags, $1.75 per dozen.

UNITED STATES CARPENTER WORK.

The low wages that have been paid to house carpenters here during the past two or three years seem to have had the effect of stopping the import of this class of work into Dundee. The high wages at the same time which have been current in the United States must have had also a tendency in the same direction. At any rate, no carpenter work has found its way from the United States to Dundee during the past year.

UNITED STATES INVESTMENT COMPANIES IN DUNDEE.

These companies are managed by directors, gentlemen of the highest capabilities and experience in United States investments, in whom the shareholders have the most implicit confidence, and the extraordinary success of these companies fully justifies the faith of the shareholders in their directorate. The first Scottish American trust company of Dundee has this year paid 8 per cent. dividend to its shareholders, and added £2,594 15*s.* to its reserve fund, which now is upwards of £37,000. The capital of this company is £300,000, and the assets have been valued by competent judges at £460,567 15*s.*, or equal to upwards of £153 per fully paid up share of £100. The second company has this year paid 8 per cent. dividend, and added £4,000 to its reserve fund, which now is £44,000. The capital is £400,000, and the assets valued at £623,174 14*s.* 2*d.*, or equal to £155 15*s.* 10*d.* per fully paid up share of £100. The third company has this year paid 7½ per cent. dividend, and added £4,000 to its reserve fund, which now is £34,000. The valuation of the assets shows upwards of £140 for each £100 share fully paid up. Another Dundee United States investment company has paid this year 10 per cent. dividend, and added £15,000 to its reserve fund, which now is £50,000. This company has borrowed no less a sum than £510,724 5*s.* 11*d.* on debenture bonds at the rates of 3½, 4, and 4½ per cent. per annum. The higher interest is paid for long loans of seven years. A Dundee United States land investment company has paid 5 per cent. dividend for its first year, and has commenced with something towards a reserve fund. The Oregon Savings Bank, having its registered office in Dundee, yields 6 per cent. dividend to its shareholders. The Oregonian Railway Company, which was managed and owned by Dundee shareholders, has been leased to another railway company in Oregon for a number of years on very advantageous terms for its partners here. These are a few figures showing how ably conducted Dundee United States investment companies are. Caution and prudence is exemplified in always making a substantial addition to the reserve funds, and so preparing for any contingencies that may arise. The figures given also prove the steady rise in United States securities during the past few years. Speculative business is not the rule with these companies; they prefer solid investments, and hold on to them unless they can sell at a very large profit. They of course seize such a favorable opportunity to clear out and reinvest in good securities. The tendency to a lower rate of interest in the United States is warning these companies to as seldom as possible part with a good security that yields fair interest. All these facts go to show with what excellent care these companies have been carried on and the very gratifying position they have attained.

AMERICAN SHIPPING. (?)

No United States vessels have arrived or departed from this port during the past year, and there was only one last year, from New York, of 466.17 tons burden, belonging to and built in Belfast, Me. The cargo consisted of sirup and oil-cake, valued at £4,000. This vessel cleared from here in ballast. Every year shows a greater and greater falling off in the arrival of United States vessels here.

DIRECT STEAMERS BETWEEN DUNDEE AND NEW YORK.

There are indications that this traffic is increasing, and it is probable that in a year or two the development of this trade will necessitate the employment of steamers of larger draught of water. But unless improved facilities (in the shape of deeper docks or steam-lighters) are obtainable the trade will be hampered and an enterprise deserving of every encouragement (being a fruitful source of revenue to the Dundee harbor) will be stunted in its growth, and possibly its very existence imperiled. In many respects the dock accommodation of Dundee is admirable. There is no port at which better facilities exist for berthing, loading, and unloading quickly vessels of a moderate draught of water. The shipping has, however, developed in a direction which, being unforeseen, has not been sufficiently provided for. When the present splendid docks were planned it was thought they would be deep enough for any vessels likely to come to the port. Since then the Calcutta trade has grown immensely, and vessels engaged in it drawing so much water cannot always be docked as soon as they arrive. The want of a deep-water dock is felt even still more in connection with the rapidly growing transatlantic trade between Dundee and New York. Accordingly the Dundee harbor board are making temporary arrangements meantime by erecting a deep-water peir and by getting steam-lighters to meet present emergencies until a deeper dock is constructed. These New York steamers carry Dundee goods at the cheap rate of from $3.12 to $3.75 per ton of 40 cubic feet measurement.

SENTIMENT OF THE PRESS AND PEOPLE.

The people of Dundee generally are sincere admirers of United States institutions, and have great sympathy with republican form of government. They are certainly remarkably well posted up in a knowledge of the United States and its politics, in which they take a lively interest. This is unmistakably due in a great measure to the valuable and reliable information disseminated by the editorials, articles, and cablegrams which appear in the Dundee Advertiser, one of the leading daily papers of Scotland, and in the People's Journal, a capital weekly newspaper which has almost the largest circulation of any weekly newspaper in Great Britain. These journals are conducted with singular ability by their principal proprietor, Mr. John Leng, a gentleman who has traveled through the whole of the United States, and who shows by the accurate knowledge he has displayed in a book written by him entitled "America in 1876," that he has studied closely the commercial, financial, and political condition of the United States.

JOHN F. WINTER,
Consul.

UNITED STATES CONSULATE,
Dundee, Scotland.

AMERICAN TRADE IN BIRMINGHAM.

REPORT BY CONSUL KING ON THE GENERAL INDUSTRIES OF BIRMINGHAM, AND UPON THE BEST MEANS OF ENLARGING AMERICAN TRADE THEREIN.

The consular agent at Kidderminster, Mr. James Morton, writes as follows concerning the establishment of an American agency at that place:

Establishments have been opened in Worcester and Kidderminster for the sale of American fresh meat, and have met with considerable success. It would, in my opinion, be of great service if sample agencies for American goods similar to those opened in London and Liverpool were established in such towns as Worcester and Kidderminster, so that persons might have opportunities of inspecting various articles of utility which they may from time to time see advertised or mentioned in the public newspapers.

A considerable and constant emigration of artizans engaged in the carpet trade of this town has been going on for a lengthened period, and several of the experienced foremen and leading hands have left for the United States within a recent period.

I have frequently thought that such an agency here might be of some use, as Birmingham itself, a town of more than four hundred thousand inhabitants, is the center of a large and densely populated manufacturing and agricultural district. It is on the edge of what my predecessor, Mr. Elihu Burritt, picturesquely termed the black country and its green border land. Upon reflection, however, I have not been able to convince myself that a sample agency of that kind would succeed here. Vast quantities of American goods, more especially of provisions, are sold here, but they are chiefly bought by the dealers here from the direct importers in London and Liverpool, where these dealers are obliged to go to procure other imported articles. Such an agency might be useful for introducing American novelties, but I think that an agent of somewhat exceptional qualifications would be necessary to ensure success.

As regards trade with America, my report shows a decrease of more than half a million dollars. This, I think, is almost solely due to the fact that last year there was a very unusual and abnormal demand for iron and steel in the United States.

I may, perhaps, be permitted to make one or two suggestions to our exporters of apples. American apples are very popular in this country, but they are also very expensive. One reason for this is, of course, the many hands through which they pass before reaching the consumer; but I also heard many complaints last year about careless packing. One dealer told me that he rarely lost less than one-third, and often two-thirds, of the contents of each barrel. It has occurred to me that much of this loss might be prevented by more careful packing. I have noticed that the oranges and pomegranates which come to this market are each wrapped separately in paper, so that one foul or rotten need not necessarily contaminate others. It certainly represents much more labor, but still these fruits, thus wrapped, are sold at retail in the streets for less than is asked for good American apples.

I have also been impressed with a belief that if some energetic, capable man, thoroughly acquainted with the wine trade, were to undertake to introduce American wines here, it might be possible to build up a great trade, such as has been recently done with Hungarian wines. I have frequently brought a few bottles of California or Catawba wines over, and they have invariably been highly praised by those who have tasted them, and orders have been sent to America for more. In importing in

small quantities, however, the price is very great, and the high price of bottles is also a drawback to buying the wine bottled in America; but I see no reason why Catawba from Kelly's Island and thereabouts should not be sold in England as cheaply as the ordinary German and French white wines, which are more or less of the same character, though often not so good.

CONDITION OF TRADE AND LABOR—BIRMINGHAM.

I think I may say that in almost all its branches trade in this district is less depressed than it was a year ago. Although there is much poverty and actual suffering, the number of enforced idlers among those who are willing to work has decreased, and most of the factories are fully occupied, though the profits are said to be small.

The wrought-nail industry has been, and still is, depressed, although for a great part of the year the men have been on strike. This trade is a curious one, inasmuch as it is not carried on in factories, but each maker has his little forge attached to his own house, where he works up the materials supplied by the capitalist. In some portions of the neighboring counties, within a dozen miles of Birmingham, nearly every house in all the scattered villages has its little forge attached. The people engaged in this trade are usually wretchedly poor, as machine-made nails have almost completely destroyed the demand for the more expensive wrought ones. In the potteries there is also just now a great strike in progress, a matter more to be regretted as business was beginning to show great signs of improvement. I regret to have to report that in the agricultural districts this year has only been less bad than the three preceding years. It began with very dry weather all through the early summer and spring. This resulted in scant crops of hay, and was fatal to the prospect of root crops; but great things were hoped for all kinds of grain. These hopes were, however, but partially realized, as about the time the grain was ripe for harvest heavy rains began and continued until very great damage had been done. The result of this, added to the three very bad years that preceded it, and the competition of foreign farmers, has been, and must continue to be, desperately hard times among the farmers, and also amongst the landlords, who are having their farms left in great numbers on their hands. They are often thus without tenants, and without either the capital or stock requisite to the proper farming of the lands themselves. This, I believe, is not unfrequently the case in these midland counties.

I cannot close this report without referring to the steady and rapid improvement of the town of Birmingham. The town government has been so wise that the people have more pleasant lives possible than in most great factory towns. The streets are well paved and well kept; numerous parks have been opened in various parts of the town; many broad, airy streets have been cut through crowded and unhealthy districts, and a great many beautiful public and private buildings have been erected. During the year, one gentleman alone has given nearly £25,000 toward the public art education of the town, and the system of educational institutions has been completed so that now, for a minimum cost, a complete education is possible without leaving Birmingham, from the most elementary schools to the highest technical and artistic development. What with compulsory primary education, and free instruction in all sorts of higher branches at night schools, numerous large free libraries and reading rooms, art schools, art galleries, and an elaborate lecture system, there is every reason to suppose that the

Birmingham mechanic of the next generation will be a most formidable competitor; and I fear that many of our own manufacturing towns might learn much from Birmingham. The Mason College of Science, built and endowed by the late Sir Josiah Mason, bids fair to become a most valuable addition to the town, and is already doing good work.

The public spirit of the wealthy citizens here is remarkable, and has largely been the cause of the improvement in the appearance of the town and the condition of the people. During the past two years, that is, during the mayoralty of Mr. Richard Chamberlain, the private gifts to the town have amounted to £100,000, and that does not include such matters as the Mason College and Orphanage, which are left in the hands of trustees, only a portion of whom are chosen by the town.

WILSON KING,
Consul.

UNITED STATES CONSULATE,
Birmingham, England.

[Inclosure in foregoing report.]

AMERICAN TRADE IN REDDITCH.

I have to report that during the year ending 30th September last 316 invoices of goods for shipment to the United States have been certified at this agency, representing a net value of $354,102 as against 363 invoices certified during last year, representing a value of $419,823, being a decrease in the exports of $65,721.

With regard to American productions (chiefly provisions) their use is increasing in this district, but the consumption is not sufficient to warrant the traders in these articles doing business direct, and supplies are consequently obtained through merchants in this country.

I believe this increase is owing to the improved condition in which the goods arrive in this country and the greater skill used in their production.

HAROLD C. BROWNING,
Consular Agent.

WILSON KING, Esq.,
United States Consul, Birmingham.

TRADE OF BRISTOL WITH THE UNITED STATES.

REPORT BY CONSUL FARRELL.

The trade and commerce of Bristol was never before in such a healthy condition in its business relationships with the United States as at this present writing.

The exports from hence do not denote this condition, but in the near future, when, if all invoices and shipments from this port by the now almost daily line of steamers for the States are to be verified at this consulate, in accordance with the requirements of State Department circular of the 20th last June, there will be better evidence of international trade.

The imports of cereals and food-supply from the United States is vastly upon the increase. It is a matter of impossibility to reach the statistics for this particular assertion, as much of the imports of this character that reach Liverpool, and most of such that are exported to Cardiff, find its ultimate destination for general distribution at Bristol, and from hence supplies are forwarded through the entire West of Eng-

land, Wales, every town upon the Bristol Channel, as also to Waterford and Cork, Ireland, through the daily lines of steamers which leave this port for these cities.

Bristol is a city of unlimited wealth and bank capital, all of which is freely used in the movement of western grain and products to this country, so that this city is now the third largest holder and distributer of all such merchandise in Great Britain, ranking next to Liverpool and London.

Not one failure has occurred in this branch of trade within the past quarter of a century. During the recent panic in the pork trade the entire press of this city vindicated this American food-supply from all imputations, and the general markets of the West of England remained quiet, calm, and undisturbed. The increase in this trade at Bristol for the past twelve months, as I learn from inquiry among the leading merchants in these specialties, will amount to within the margin of 25 to 33⅓ per cent., but in the article of flour it will prove more than these figures, as many of the West of England millers have been supplying their customers with Minnesota makes, specially branded for their sales and disposition.

The number of large and small seafaring and foreign trading vessels, which arrived at this port since October 1, 1880, to the 30th September, 1881, amounted to 1,011 vessels, representing a tonnage of 514,397, *only six of which carried the American flag*, with a tonnage of only 6,184 tons. This clearly exhibits the fact that the ordinary sailing ships no longer can compete with the steam marine, and with which Great Britain at present rules the world.

Iron-ship building continues to increase in this country for home wants, and foreign orders are no longer solicited. The values in landed property and estates are gradually diminishing; a social, quiet revolution in this particular permeates the entire country. Upon the Berkeley property in Gloucestershire there are over 50 farms unoccupied, and the same condition exists in all the agricultural shires of England.

The better class of farmers, with the remnants of their fortunes, are wending their way daily and hourly to the United States. Letters of inquiry pour into this office by every mail delivery, and the reading-rooms, which I have inaugurated and attached to this consulate, are daily patronized by the capitalists, inquiring for special land investments, and intending emigrants avail themselves of its free privileges, and so far, in this particular respect, the reading-rooms prove to be a great success. I have also located in the consulate building, separate and apart from the consular office, a sample-room for the exposition of American products and patents, and this has proved a great convenience to American travelers and commercial men.

I herewith give the ruling rates for wages for the past year at Bristol and its surroundings:

	s.	*d*
Agricultural laborers, per week	16	0
Dock laborers, per week	24	0
Dock corn porters, per week	22	0
Engineers, per day	10	0
Ship carpenters, per day	5	9
House painters, per hour		7
Blacksmiths, per day	5	0
Masons, per day	6	0
House carpenters, per hour		7

The labor market is here over-supplied; the substitution of steam for sailing vessels, and the large Avonmouth and Portishead dock being

some 5 miles from the city proper, have seriously affected the tradesman, shopkeeper, artisan, mechanic, and laborer of Bristol; but, notwithstanding, the people seem happy and contented with the relative position allotted to them in life's struggle.

Annexed to this report is document marked A, tonnage arrivals at Bristol; document marked B, American arrivals at Bristol; document marked C, statement of cattle, &c., landed at Bristol and Avonmouth docks for year, October 1, 1880, to September 30, 1881.

In conclusion I beg to call your attention specially to my dispatch No. 14, of June 16, 1881, and most respectfully suggest parts of that dispatch could be creditably embodied with this report, as the facts, figures, and statistics therein contained were the product of much work, toil, and labor, and worthy of extended recognition and publication.

JNO. FARRELL,
Consul.

UNITED STATES CONSULATE,
Bristol, England.

A.

Number, tonnage, and nationality of vessels, steamships, arrived at the port of Bristol from October 1 to September 30, 1881.

Countries.	Number of vessels.	Tonnage.
America	6	6,184
Austria	7	3,175
Belgium	2	1,522
Denmark	11	4,451
England	755	419,603
France	60	7,937
Germany	27	9,420
Greece	6	2,893
Holland	4	1,007
Italy	16	7,703
Norway	87	36,019
Portugal	3	469
Russia	12	5,346
Spain	1	921
Sweden	14	7,747
Total	1,011	514,397

	Tons.
Total British tonnage for the year	419,603
Total foreign tonnage for the year	94,794
Excess of British over foreign	324,809

B.

Arrival of American vessels at the port of Bristol from the 1st of October, 1880, to the 30th of September, 1881.

Date.	Names of vessels.	Procedence.	Cargo.	Tons.
1880.				
Nov. 13	L. L. Sturges	New York	Petroleum	1,309
30	Robert Dixon	Valparaiso	Guano	1,367
Dec. 20	C. C. Sweeny	New York	Naphtha	642
1881.				
May 31	Storm King	San Francisco	Maize	1,261
July 28	Graham's Polly	New York	Petroleum	759
Sept. 28	Ladoga	do	do	866
	Total			6,184

C.

Statement of oxen, hogs, and sheep landed at Bristol and Avonmouth docks from the United States from October 1, 1880, to September 30, 1881.

Date.	Ship.	Oxen.	Hogs.	Sheep.
1880.				
Oct. 4	Bristol City	192	.....	202
11	Llanarthen	140	.....	20
20	Bristol	91	.....	299
21	Ayton	99	.....	305
27	New York City	100	.....	.....
Nov. 2	Gloucester	90	.....	200
4	Devon	99	.....	.....
8	Bath City	100	.....	.....
8	Galatea	100	.....	.....
16	Cornwall	90	.....	.....
18	Somerset	81	.....	.....
20	Belsize	100	.....	.....
Dec. 16	New York City	.....	.....	352
16	Gloucester	88	.....	.....
1881.				
Jan. 1	Bath City	.....	.....	420
6	Riversdale	100	.....	.....
6	Bristol City	81	186	.....
Feb. 3	Gloucester	86	175	50
24	Bristol City	83	.....	240
April 19	Gloucester	87	.....	220
May 6	Bristol City	89	.....	280
10	Brooklyn City	100	.....	.....
26	New York City	110	.....	.....
June 3	Gloucester	89	.....	300
14	Devon	94	.....	225
20	India	110	.....	156
23	Bristol City	89	.....	284
27	Brooklyn City	126	.....	154
28	Southbourne	297	.....	.....
28	Deepdale	328	.....	.....
July 4	Italia	107	.....	.....
11	New York City	110	.....	150
11	Cornwall	32	.....	349
18	Rhiminda	110	.....	.....
18	Gloucester	90	.....	278
Aug. 11	Brooklyn City	120	.....	.....
11	Bristol	89	.....	261
15	Rhonda	23	.....	894
15	Olympia	102	.....	.....
26	New York City	109	.....	100
Sept. 1	Gloucester	88	.....	297
8	Rhewinda	50	.....	.....
8	Devon	100	.....	.....
19	Dorset	157	.....	.....
26	Bristol	90	.....	240
29	Somerset	82	.....	.....
	Total	4,698	361	6,276

AMERICAN TRADE IN HULL.

REPORT BY COMMERCIAL AGENT HOWARD.

There are several large and wealthy firms engaged in the American trade, and the import of bacon, hams, butter, and cheese, is very large. A considerable number of cattle also arrive at Hull from America direct. The firm of Thomas Wilson Sons & Co., of Hull, the largest firm of private ship-owners in the world, have twelve large steamers whose carrying capacity varies from 2,000 to 3,000 tons each, engaged in a line between Hull and Boston, and Hull and New York. They have excellent accommodation for cattle, and land the animals in very good condition.

The New York line of Messrs. Wilson Sons & Co., consists of the following vessels:

	Tons, net register.		Tons, net register.
Galileo	1,976	Rialto	1,799
Othello	1,941	Sorrento	1,778
Lepanto	1,914	Salerno	1,659
Otranto	1,877	Yeddo	1,451
Romano	1,876	Bassano	1,187
Marengo	1,828	Toledo	1,179

American hams, bacon, pork, lard, butter, and cheese, find a ready market in Hull, and large quantities of the bacon arriving at Hull are exported to Sweden and Norway.

THE GROWTH OF THE AMERICAN TRADE.

The following tables show the rise of the trade between Hull and the American continent during the past twenty-five years:

THE ATLANTIC PORTS.

Year.	Vessels.	Tons.	Year.	Vessels.	Tons.
1857	5	2,246	1869	8	4,472
1858	6	2,185	1870	16	7,254
1859	7	2,552	1871	37	18,826
1860	9	4,285	1872	..	..
1861	5	1,289	1873	53	26,388
1862	..	..	1874	78	39,605
1863	4	1,457	1875	48	33,208
1864	3	2,083	1876	122	87,320
1865	1	508	1877	147	97,536
1866	..	..	1878	174	116,734
1867	3	1,837	1879	147	142,325
1868	5	2,843	1880	175	170,910

The first arrival at Hull from California and Oregon was in 1861, since which years the arrivals have been as follows:

PACIFIC PORTS.

Year.	Vessels.	Tons.	Year.	Vessels.	Tons.
1861	1	587	1871	3	2,030
1862	None.	..	1872	None.	..
1863	2	2,004	1873	13	11,170
1864	None.	..	1874	11	7,953
1865	do	..	1875	33	29,512
1866	do	..	1876	22	23,479
1867	4	1,110	1877	46	48,340
1868	3	1,842	1878	30	33,361
1869	1	635	1879	41	41,549
1870	1	500	1880	35	39,323

The only unsatisfactory feature in this return is that the number of American ships comprised therein is so small. As I have previously said, the accommodation for ships of the very largest tonnage is all that can be desired, yet somehow but few American ships find their way to this port. Not one American steamship has ever yet visited Hull, yet their cargoes of grain could be easily disposed of, and just now large quantities of coals are being exported to San Francisco, thereby providing a return cargo.

EMIGRATION.

The number of emigrants passing through Hull during the season for the United States has been very large. During 1880, about 60,000 Scandinavians alone were brought to Hull in ships belonging to Messrs. Thos. Wilson Sons & Co. They are a fine, robust set of people, very hard working, and extremely intelligent, and unhappy must be the country whose population is thus leaving it wholesale. About 20,000 German emigrants also pass through Hull in the course of a year; they are an inferior set of people to the Norwegians and Swedes.

SUMMARY OF BUSINESS AT THIS CONSULATE DURING THE PAST YEAR.

The total number of American vessels which arrived at this port during the past year was 14, having an aggregate tonnage of 18,163 tons. The cargoes consisted of the following, viz: Wheat 12, turpentine and rosin 1, linseed 1; total 19; the aggregate value being $1,471,559.

AMERICAN SHIPS.

In concluding this report I call attention to the enormous quantity of wheat, provisions, and other merchandise imported into Hull from the United States, as shown in the foregoing tables, and to the fact that of this amount nine-tenths were in foreign bottoms. The cost in freightage alone shows an enormous loss to America. It would seem that this vast quantity of tonnage should have been carried in American vessels. This is the more to be regretted, as in nearly every case the passages made by the American ships are shorter than those of foreign ships. It should also be observed that comparatively small nations, the Norwegians and Italians, are now carrying more produce from the United States to this country than the Americans themselves. With the certainty of an immense and steady import of wheat and provisions from the United States, it would seem that American enterprise should be able to furnish its own vessels.

RELIEF OF AMERICAN SEAMEN.

The port of Hull is so situated that it has become the great port of communication between England and the continental nations. This fact has led me to see more of what seem to be the defects of the laws relating to American seamen than falls to the lot of other consuls. Not a week elapses but that seamen apply at the consulate for relief, who have had their way paid from Hamburg, Antwerp, or other continental ports to Hull. This is done by the captain or consul of the nation to which the ship belonged, and the man is told to apply to the American consul of Hull, who will find him a ship or give him relief. The proper consul here will not relieve such a man because he has been discharged at the ship's *home* port, and as a consequence the meager resources of the American consular officer have frequently to be drawn upon in order to help a countryman out of absolute want. When such men are told of their stupidity in joining foreign ships, the invariable answer is that there were so few American ships as to compel them to accept the first chance offering.

The wheat ships arriving at this and other ports from San Francisco are manned by the most worthless set of men. Of the large ships here during the past four months, viz, the Reaper, Amy Turner, Solitaire, and Tam O'Shanter, the first named had two, the second three, the

third three, and the last three, men who could be trusted at the wheel to steer. These men were paid from $20 to as high as $40 per month, and, in addition to this, a bonus or "blood money" is called for by the boarding master to the extent of $15, and as high as $25 for each man. It is little short of a miracle that vessels so manned should safely reach their destination. The large majority of these men are green landsmen, and as a matter of course, being but of little use on board the ship, they do not receive the best of treatment, and on reaching port desert and become chargeable on some of the consulates. Three months' advance pay is demanded at San Francisco, and this, as does everything else, goes to the boarding master. The men are put on board without clothing, and, according to many of them, in a state of intoxication, and without their own consent. Upon arrival here they are in debt to the ships, and, aided by the crimps, and not opposed by the officers, they desert.

Many men—English, Norwegian, or French—ship in our vessels, and upon arrival here desert and claim the relief of the consulate as American seamen, notwithstanding they are at their home port.

To state the whole matter broadly, *there are few American* ships and *no American seamen.*

It is difficult to devise a remedy, but I respectfully suggest for the consideration of the department some changes which I think might act beneficially.

(1) The abolition of advance notes, as England has lately done, and the prohibition of payment of any money upon the order of the seamen to any person except a dependent relative. This is practically the new English law, and the test of its value is the tremendous opposition made to it by the boarding-house masters.

(2) The extension of relief to seamen who are American citizens, and to those only.

(3) The abolishing of the three-months'-extra-pay law, and substituting therefor the discharge of men before the consul, with, if in the opinion of the consul necessary, the payment of sufficient wages to return them to the nearest American port.

The adoption of some such plan as is suggested in the last clause would, I believe, act well throughout the consulates in England, and at this port would result in an almost total cessation of consular relief.

I beg to record my settled conviction that the present system of relief of American seamen is little better than a complete swindle; that it in nowise accomplishes the intention of the law, and only results in the expenditure of money for the relief of foreigners, the encouragement of crimps, and in many cases even to false swearing by the master to the desertion list.

EDWARD HOWARD,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Hull, England.

EXPORT OF POTATOES FROM LEITH TO THE UNITED STATES.

REPORT BY CONSUL LEONARD.

Believing the subject to be one of some interest, I take occasion to report to the Department of State on the development of a new line of

trade between Leith and the United States in the exportation of potatoes.

The invoice of the first shipment of potatoes from Leith to the United States was declared at this consulate yesterday. The shipment consists of 171 tons, consigned to a firm in New Orleans, La., and other consignments are intended to be dispatched shortly. It is expected that the steamship Critic, belonging to the Arrow Line of Leith and New York steamers, which is appointed to leave Leith on the 15th February, will load up with potatoes, and, probably, the Longhurst, another vessel of same line, will take out to New York a similar lot within a few days afterwards. It is said, also, that two vessels are chartered to load up with a like cargo from Dundee.

The chief exportations of potatoes to the United States appear to have been from Glasgow, and the aggregate quantities shipped from that port lately, I am informed, amounted to as much as three to four thousand tons per week.

The earliest instance of such shipments occurred only a few weeks ago, when, a demand having arisen for them by reason of the partial failure of the potato crop in the United States, while the supply throughout Scotland was plentiful and prices had fallen, a few lots were sent. These were smaller than such as have been shipped subsequently, but, as ventures, they were very successful, and they encouraged merchants and others to send additional consignments.

Nevertheless, it is believed that such development of the export trade here in the special article of potatoes is purely phenomenal and temporary. The value of potatoes in New York now is stated to be much lower than it was on arrival of the early shipments, and that further supplies sent thither or to other ports in the United States may be only sent in fulfillment of contracts.

J. A. LEONARD.
Consul.

UNITED STATES CONSULATE,
Leith, Scotland, February 7, 1882.

TRADE AND INDUSTRIES OF GLASGOW.

REPORT BY CONSUL HARTE.

The value of declared exports from this port to the United States for the past year is only slightly in excess of that of the previous year, but it will be noticed that there is a marked increase in the principal imports from the United States, especially in wheat, Indian corn, flour, and cheese. The general trade and commerce of Glasgow is gradually recovering from the depression which has existed for several years, and at present the outlook in almost every branch of trade is of a hopeful nature.

Iron shipbuilding, or rather iron and steel shipbuilding, which is the principal industry of this district, has exhibited a most remarkable development during the last eighteen months. The new tonnage launched during the year 1880 amounted to 248,656 tons, while for the previous year the number was 157,605 tons, and the amount of tonnage in process of construction, or contracted for at the beginning of 1881, was 314,117, while at the beginning of 1880 it was 149,178. From January to September, 1881, the tonnage launched so far as could be ascertained

amounted to 242,000, and it is stated that the tonnage on hand all over the river at the present time is larger than the total tonnage put into the water during the year 1874, which was the busiest year in the history of ship-building.

It is believed that the present flourishing condition of the Clyde shipbuilding trade is due to some extent to the new French shipping law, establishing the bounty system. Fears were entertained by some that that law would seriously affect the future of British shipbuilders. The first effect, however, of the bounty system has apparently been to fill the Clyde shipbuilding yards with new orders, and it is now considered here to be very doubtful whether it will ultimately injuriously affect the shipbuilding industry.

It is now certain that the harvest in Scotland this year will be much below the average. For several weeks past the weather has been very unfavorable, heavy rains and cold biting winds alternating with each other, and retarding the ripening of all kinds of grain. Over many counties in Scotland very little grain has yet been secured, and the damage to the outstanding crops must be considerable.

BRET HARTE,
Consul.

UNITED STATES CONSULATE,
Glasgow, Scotland, 1881.

TRADE BETWEEN GLASGOW AND THE UNITED STATES.

Statement showing the principal imports from the United States to the city of Glasgow for the year ending September 30, 1881.

Articles.	Quantities.
Dead meat:	
Beef ..... lbs..	17, 279, 200
Mutton ..... do..	1, 174, 300
Live cattle ..... head..	8, 754
Live sheep	
Wheat ..... bushels..	2, 324, 014
Indian corn ..... do...	3, 662, 367
Flour ..... cwts..	3, 086, 092
Oatmeal ..... do...	59, 941
Butter ..... do...	91, 724
Cheese ..... do...	292, 562
Lard ..... do...	42, 307
Bacon ..... do...	171, 626
Salt pork ..... do...	11, 172
Hams ..... do...	61, 398
Leather ..... do...	2, 765
Tallow ..... do...	34, 548
Rosin ..... do...	43, 229
Shoe pegs ..... do...	2, 122
Tobacco ..... do...	60, 782
Oil-cake ..... bags..	20, 061
Canned meats ..... cases..	100, 964
Apples ..... barrels..	181, 515
Staves ..... pieces..	378, 049
Lumber ..... do...	1, 074

Statement showing the value of declared exports from the consular district of Glasgow to the United States during the four quarters of the year ending September 30, 1881.

Articles.	Quarters ending— December 31, 1880.	March 31, 1881.	June 30, 1881.	September 30, 1881.	Total for the year.
Thread	$558,088 10	$507,402 50	$587,167 79	$724,625 30	$2,377,283 69
Cotton and linen goods	204,012 80	379,312 80	139,225 82	245,341 14	967,892 56
Woolen goods	22,212 60	34,861 80	1,606 32	41,426 82	100,107 54
Muslins	67,408 50	182,056 25	59,498 42	74,577 86	383,536 03
Laces and trimmings	33,597 20	104,561 80	61,086 30	150,256 12	349,501 42
Carpets	59,829 15	34,259 25	13,272 00	35,113 08	142,473 48
Hats and caps	28,830 50	13,220 30	32,730 68	53,817 26	128,598 74
Furs and skins	30,186 20	20,685 50	8,863 32	10,255 50	69,990 52
Fishing gut	8,601 20	6,737 00	3,378 14	4,704 50	23,420 84
Hemp and jute goods		402 25	17,412 16	20,026 86	37,841 27
Books	2,084 00	3,483 25	3,502 42	6,200 70	15,270 37
Pig iron	205,677 20	319,533 40	252,601 60	324,035 60	1,101,847 80
Machinery and iron ware	37,740 12	41,127 56	119,365 42	319,869 30	518,602 40
Wire goods	8,844 50	8,347 00	15,611 34	3,386 20	31,189 04
Gum and paints	24,620 00	17,562 20	8,354 16	16,253 90	67,110 26
Coals	6,898 30	7,102 58	14,211 50	27,452 70	55,665 08
Paper and paper stock	36,829 30	32,397 50	29,386 24	41,501 40	140,114 44
Granite and stone goods	3,742 40	3,544 00	7,525 92	7,733 00	22,545 32
Wines and liquors	39,407 50	4,617 50	7,011 60	27,966 25	79,002 85
Beer	17,007 60	7,560 25	8,537 92	6,827 50	39,933 27
Scrap iron and steel			15,692 68	41,111 00	56,803 68
Tobacco pipes (clay)	3,482 00	7,362,15	9,394 28	3,826 10	24,064 53
Shawls	19,457 60	33,662 50	18,712 90	5,572 30	77,405 30
Fire-clay goods	4,247 50	3,507 75	1317,662 50	3,304 15	18,721 90
Chemicals	262,361 30	1,794,547 30	8,723 10	166,837 12	2,362,468 82
Earthenware and glass	14,977 15	21,652 50	4,876 16	7,667 20	59,173 01
Miscellaneous	97,760 50	102,905 10	72,680 74	199,371 20	472,667 54
Total in United States gold	1,702,903 22	3,692,431 99	1,668,836 43	2,569,060 06	9,723,231 70
Total for preceding year	2,404,609 46	2,814,554 20	2,150,612 77	1,850,151,45	9,219,927 88
Increase		877,877 79		718 908 61	503,303 82
Decrease	611,609 24		481,776 34		

SHIP-BUILDING ON THE CLYDE.

Return of number and tonnage of new vessels launched upon the river Clyde during the year 1880:

Description.	No.	Tons.	No.	Tons.
Iron steamers:				
Under 100 tons each	30	1,213		
From 100 to 500 tons each	42	12,964		
From 500 to 1,000 tons each	22	18,653		
From 1,000 to 2,000 tons each	35	58,809		
From 2,000 to 3,000 tons each	19	43,760		
From 3,000 tons and upwards	12	42,750		
			160	178,149
Iron sailing ships:				
Under 500 tons each	3	284		
From 500 to 1,000 tons each	12	10,300		
From 1,000 to 2,000 tons each	4	6,373		
			19	16,957
Steel steamers:				
Under 100 tons each	4	64		
From 100 to 500 tons each	4	1,298		
From 500 to 1,000 tons each	7	4,996		
From 1,000 to 2,000 tons each	9	12,359		
From 2,000 to 3,000 tons each	4	10,699		
From 3,000 tons and upwards	3	20,642		
			31	50,058
Steel sailing ships:				
Under 500 tons	2	100		
From 1,000 to 2,000 tons each	1	1,245		
			3	1,345
Composite steamers:				
Under 100 tons	1	12		
From 300 to 1,000 tons	3	1,790		
			4	1,805

Return of number and tonnage of new vessels launched, &c.—Continued.

Description.	No.	Tons.	No.	Tons.
Iron barges, in pieces, for Burmah			6	2,128
Patent Hopper barges			2	1,600
Steam yachts (wooden)			2	25
Steel yachts			2	137
Wooden sailing yachts			2	15
Steel barge			1	83
Steel cutter yacht			1	87
Iron lighters			15	900
Iron barge, in pieces			1	70
Steel paddle steamer, in pieces			1	80
Steel barges, in pieces			2	150
Wooden steam yachts			2	40
			254	248,656

Number and tonnage of new vessels launched each year from 1864 *to* 1880.

Year,	Amount of new tonnage launched during the year.	Amount of new tonnage on the stocks or under contract on the 31st of December of each year.
1864	178,505	105,957
1865	153,932	122,404
1866	124,513	71,869
1867	108,024	124,082
1868	169,571	134,818
1869	192,310	140,999
1870	180,401	180,175
1871	196,229	301,809
1872	230,247	247,345
1873	232,926	192,608
1874	262,430	182,303
1885	211,482	187,457
1876	174,824	161,441
1877	169,383	140,174
1878	211,989	82,984
1879	157,605	149,178
1880	248,656	314,711

Emigration from the Clyde from 1874 *to* 1880.

	1874.	1875.	1876.	1877.	1878.	1879.	1880.
CABIN PASSENGERS.							
Male, 1,386; female, 1,016	2,402						
Male, 1,366; female, 884		2,250					
Male, 1,594; female, 994			2,588				
Male, 1,300; female, 868				2,168			
Male, 1,557; female, 1,067					2,624		
Male, 1,315; female, 907						2,222	
Male, 1,688; female, 1,077							2,765
STEERAGE PASSENGERS.							
Male, married adults	1,684	1,252	1,032	697	1,154	1,607	1,906
Female, married adults	2,018	1,417	1,123	872	1,427	2,361	3,243
Male, single adults	6,385	4,820	3,733	3,379	4,633	8,133	12,285
Female, single adults	2,927	2,364	1,922	1,470	1,816	2,302	3,064
Male, children	2,234	1,563	1,243	745	1,224	2,268	3,002
Female, children	2,116	1,504	1,126	674	1,098	1,642	2,824
Total	19,766	14,070	12,767	10,005	13,976	20,535	29,109

Emigration from the Clyde from 1874 *to* 1880.—Continued.

	1874.	1875.	1876.	1877.	1878.	1879.	1880.
NATIVITY.							
English	387	314	355	617	814	752	148
Scotch	14,596	10,606	7,086	5,743	7,728	13,182	16,961
Irish	1,655	784	774	1,455	1,248	1,134	258
All others	3,278	3,366	4,552	2,190	4,186	5,467	11,742
Total	19,766	15,070	12,767	10,005	13,976	20,535	29,109
DESTINATION.							
United States	11,555	8,492	6,539	5,230	7,195	13,628	23,988
Canada	2,453	1,756	2,149	793	1,498	1,796	3,658
New Brunswick	316	108	31	.....	.....	.....	.....
Victoria, Australia	365	.....	.....	.....	390	567	.....
Queensland	317	756	907	1,248	1,452	106	64
Melbourne	.....	373	387	406	*798	*414	333
New Zealand	4,678	3,405	2,617	2,093	2,412	3,824	805
All other places	82	180	137	285	230	202	261
Total	19,766	15,070	12,767	10,005	13,976	20,535	29,109

* Adelaide.

EXPORTS OF TUNSTALL POTTERY TO THE UNITED STATES.

REPORT BY CONSUL LANE.

I have the honor to transmit herewith, in accordance with consular regulations, my report of the trade of this district for the past year. The volume of exports from this district to the United States has somewhat more than held its own with the preceding year, in which there was an increase of upward of one million dollars over 1879. It is noticeable, however, that the last quarter of the year shows a falling off when compared with the corresponding quarter of 1880 of $69,84 0.25. This is the first *decrease* which has occurred in the exports from this consular district to the United States, over the corresponding preceding quarter, since the quarter ended December 31, 1878, or for nearly three years, and from what I hear about new orders and the generally hopeful feeling among the manufacturers, it does not indicate an immediate decline in the American trade. I need hardly add, however, that it is easy to discover a prevalent apprehension among manufacturers that at some time—but indefinitely remote—the pottery industry will attain to such proportions in the United States as to interfere seriously with their best market. That the United States is their best market will be readily understood when it is known that the exports of earthenware, parian, china, majolica, porcelain ware, and tiles thereto, amount annually to nearly as much as those to all other countries combined.

The manufacture of those goods is of course the staple industry of the district, and the amount in value sent to the United States during the past year is equal to 90 per cent. of all the exportations from this district to that country during said period.

It is worth noticing that the improved condition of the trade of this district, over what it was from 1873 to 1878, is owing almost entirely to the increased demands of the markets of the United States. The rest of the export trade and the home trade have shown scarcely a favorable symptom. I wrote, without giving exact figures, a general statement

of the exports of earthenware, &c., from Great Britain to countries other than the United States, during the eight months ended August 31, 1881, as compared with the corresponding period of 1880: To Germany, a decrease of about 15 per cent.; to France, an increase of about 20 per cent.; to Brazil, a decrease of about 12 per cent.; British North America, an increase of about 17 per cent.; to British India, an increase of about 7 per cent.; and to other countries an amount about equal to the shipments for the corresponding months of last year.

The subject of wages, and other questions affecting the relations between the manufacturers and workmen, and the resulting condition of the trade of the district continues to be a source of increasing interest, not to say apprehension, on the part of the former. As intimated in my report, at the end of the first quarter of the present calendar year, the arbitration system seems to be, for the time being at least, broken up. This is the first autumn for several years that has not brought a reasonable settlement of all pending disputes between manufacturers and workmen through the friendly process of arbitration. That these settlements have been of mutual benefit there can be no doubt, but the workmen have, as previously reported, withdrawn from the board of arbitration, and now demand what the manufacturers say they cannot concede without positive loss. These demands are for an increase of wages, and a change of hiring time from Martinmas (November 11) to some time in May. The purpose of this latter demand is obvious. A general strike would be much more convenient at the commencement of summer than at the beginning of winter. It is needless to add that this is giving the workmen an advantage which the manufacturers dread to place in their hands.

EDWARD E. LANE,
Consul.

UNITED STATES CONSULATE,
Tunstall, England, October 20, 1881.

SWISS EXPORTS TO THE UNITED STATES.

REPORT BY CONSUL MASON.

I have the honor to inclose herewith a consolidated statement showing the sum of all declared exports from Switzerland to the United States during the year 1881, compared with returns of 1880, and revealing a deficit of 7,784,180 francs in the gross amount since last year. Also a comparison between the exports of 1881 and the average totals of the past sixteen years, showing an increase of 17,856,740 francs during 1881, as compared with the previous average named. This return is usually made by the legation at Berne, but for obvious reasons it is now sent from this consulate.

Statistics of the imports to Switzerland from the United States are not accessible before five or six months after the close of the year under consideration. They will be forwarded as soon as trustworthy reports can be obtained.

FRANK H. MASON,
Consul.

UNITED STATES CONSULATE,
Basle, Switzerland, February 8, 1882.

I.—*Exports from Switzerland to the United States during the year* 1881 *compared with the aggregates of the preceding year.*

Articles.	Total for 1880.	Total for 1881.	Difference.
	Francs.	*Francs.*	*Francs.*
Silk and silk goods	40, 414, 626	32, 984, 958	— 7, 429, 688
Cotton and woolen goods	1, 912, 382	1, 264, 681	— 647, 701
Embroideries	22, 549, 195	18, 923, 534	— 3, 625, 661
Straw and horse-hair goods	2, 947, 789	3, 347, 595	+ 399, 806
Watches and watch material	10, 143, 813	11, 809, 122	+ 1, 665, 309
Music-boxes	261, 333	447, 599	+ 185, 766
Cheese	1, 969, 418	2, 372. 219	+ 402, 801
Leather and skins	962, 912	1, 528, 675	+ 565, 763
Miscellaneous	3, 243, 920	3, 943, 345	+ 699, 425
Total	84, 405, 908	76, 621, 728	
Net decrease			7, 784, 180

II.—*Exports from Switzerland to the United States during* 1881 *compared with the average annual exports to the United States during the sixteen preceding years, viz,* 1864 *to* 1880, *inclusive.*

Articles.	Average totals, 1864–1880.	Total of 1881.	Excess or decrease in each class.
	Francs.	*Francs.*	*Francs.*
Silk and silk goods	29, 986, 079	32, 984, 958	+ 2, 998, 879
Cotton and woolen goods	1, 917, 608	1, 264, 681	— 652, 927
Embroideries	10, 330, 766	18, 923, 534	+ 8, 592, 768
Straw and horse-hair goods	2, 165, 839	3, 347, 595	+ 1, 181, 756
Watches and watch materials	10, 615, 223	11, 809, 122	+ 1, 194, 899
Music-boxes	243, 303	447, 599	+ 203, 796
Cheese	1, 440, 113	2, 372, 219	+ 932, 106
Leather and skins	327, 366	1, 528, 675	+ 1, 101, 309
Miscellaneous	1, 739, 191	3, 943, 345	+ 2, 204, 154
Total	58, 764, 988	76, 621, 728	+ 17, 856, 740

III.—*Exports of* 1881 *by consular districts.*

	Francs.
Consular district of Basle	24, 989, 409
Consular district of Zürich	26, 049, 552
Consular district of St. Galle	21, 141, 350
Consular district of Geneva	4, 441, 417

EXPORTS FROM GENEVA TO THE UNITED STATES.

REPORT BY CONSUL ADAMS.

I inclose herewith a table showing the exportation to the United States from this district in 1881. The figures indicate a constant increase during all the four quarters of the year in the exportation of leather, milk food, musical boxes, watches, and spirits, and much variation in that of aniline colors, files, and gravers, and miscellaneous articles. The whole increase is by far the largest ever recorded, bringing the total to $857,193.48, not much less than the total for 1871, which remains the year of largest exportation. The amount decreased rapidly from $909,608.23 in 1871 to $240,933.22 in 1878, since when it has risen with greater rapidity. A part of the increase for the last year, however, must be set down as the effect of the Department circular of June 20

last, requiring invoices of exports to the United States to be produced to the consul nearest the place of shipment.

LYELL T. ADAMS,
Consul.

UNITED STATES CONSULATE,
Geneva, February 9, 1882.

Value of declared exports to the United States from the consular district of Geneva for the year ending December 31, 1881.

Articles.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.
Aniline colors	$8,320 62	$9,981 77	$4,335 44	$5,881 79	$28,519 63
Files and gravers	4,119 72	8,683 80	3,836 56	10,363 26	27,003 34
Leather	51,836 88	57,186 35	66,579 27	119,431 81	295,034 31
Milk food	.....	6,986 60	8,028 80	13,558 38	28,573 78
Musical boxes	5,502 68	18,034 24	27,780 26	40,069 33	86,386 51
Watches	48,569 45	62,395 01	109,288 52	119,803 03	340,056 01
Wine and spirits	4,329 88	3,590 28	6,515 87	5,880 13	20,316 16
Miscellaneous	16,118 88	5,095 59	6,562 39	3,526 88	31,303 74
Total	138,798 12	166,953 64	232,927 11	318,514 61	857,193 48
Increase	.....	28,155 52	65,973 47	85,587 50	311,612 77

AMERICAN TRADE IN HOLLAND.

REPORT BY CONSUL ECKSTEIN.

Since my last special report on this subject, about two years ago, the trade in this market and country in United States manufactures has undergone many and varied changes.

The imports which two years ago were largely in demand have considerably fallen off; others which had been successfully introduced and for which an increasing demand seemed most promising are as sparely seen here now as they were then.

This state of things might have been prevented by our exporters, as it is owing largely to relaxed efforts on their part to maintain or extend their foreign trade.

The trade has further suffered from carelessness in filling orders, and also by raising the prices of many articles, and foreign competition has lost no opportunity of improving every chance tending to establish or improve its standing. Still as many new articles have been introduced. It may be stated the American trade in the Netherlands holds its own.

That the trade in products of American industry has not attained greater importance here is due not so much to the fact that but few articles are imported, but rather that there is little business done at present in any line.

To show that a great variety of our manufactures find their way for sale in the markets of this country, I name the following, viz: Steam-engines, machinery, farming implements, hardware and builders' materials, edge tools, sewing-machines, scales, clocks, watches and watch chains, electro-plated ware, cabinet organs, kitchen and table utensils, stationery, locks and knobs, soap and toilet articles, shoe-pegs, slates, canned goods, &c.

The American trade has suffered largely in consequence of the in-

creasing competition from Germany within a year or two, and this is more especially the case concerning hardware supplies.

The German manufacturer is constantly on the *qui vive* to find and manufacture imitations of American novelties which happen to be in demand. These imitations are, however, inferior to goods of American make, but they resemble so closely the genuine articles that purchasers can be easily deceived; they sometimes succeed also from their being obtainable at a lower price.

The following articles of American manufacture were until recently greatly in demand.

Hay and manure forks.—As long as these articles only met with English competition the trade therein was well maintained, but latterly the market has been glutted with supplies from Germany. These goods are provided with the veritable American ash handles, and though they are in respect to shape and finish somewhat inferior to American goods, still they work considerable injury to trade in the American article from the fact of their being so much cheaper. If our manufacturers want to prevent their goods being entirely driven out of the markets of this country they must furnish cheaper articles than those they have been exporting hitherto.

Door fixtures.—Cheap American locks, knobs, &c., are no longer as much in demand as formerly, and this, I am informed, is on account of their fragile construction, so that a little rough handling gets them out of order or causes them to break. It would seem that, to keep up the demand and push the trade in these articles, their quality must be improved and their solidity increased without augmenting their price.

Builders' hardware.—Better qualities of goods in this line are at present extensively used, and it would appear that the high price of American articles of this description is alone to blame for their not being more largely imported.

Woodware.—The imports of "handles" of every description are increasing. Carriage and wagon spokes are getting more and more appreciated, and it is said that if orders were filled with greater promptitude the business in these articles would further improve. The French and home styles in furniture manufacture have, so far, interposed against the successful introduction of American furniture of good and best quality; although, as to price, this latter could be made to compete with the manufactures of other countries; and the freight thereon would not interfere so much as on the common and cheap articles.

Carriages.—Light carriages and buggies, for re-exportation to the East India markets, continue to be imported, and the light demand in the article of late is principally owing to the fact that the times are not so prosperous as they have been.

Canned goods.—The trade in canned goods is increasing. Despite the strong competition in home preservers and dealers, the people continue to appreciate the excellent quality of the best brand of canned goods of every description, and the demand not only keeps up but is constantly increasing. At the same time, I am informed by importers and commission dealers in the article here that any advance in present prices would be sure to injure the trade, as, in most goods, there is but the smallest margin for profit. California fruit is especially in favor here. Vegetables are not wanted for this market; indeed, on the contrary, Dutch canned fowl, soups, and vegetables, are exported by local preservers to foreign countries with considerable success.

Sewing-machines.—The ever-increasing efforts on the part of continental manufacturers and their agents to displace American sewing-machines

by substituting the product of their industry have, so far, utterly failed. The American article continues to be preferred, and the trade is steadily increasing year by year.

Pianos, organs.—American pianos (Steinway's) are also now imported here, but as yet only in very limited numbers. The quality of those instruments and their superiority to other makes are well known and generally acknowledged in this country, but the price at which they are held prevents their being sold in large numbers. Parlor, standard, and cabinet organs have been very successfully introduced here, and a considerable trade has started, with a good prospect of further increase.

It is difficult to understand why a much larger trade was not cultivated and carried on in this country in American machinery of different kinds, and in farming implements, tools, &c.

On applying for information on this subject to the firm of Landré & Glinderman, of this city, one of the oldest and principal firms in Holland engaged in importing such articles, the firm was kind enough to furnish me with a written statement, setting forth some of their experiences and opinions respecting the matter, as follows:

Several years ago, our firm commenced trading in American machinery, implements, and tools, having been induced to do so by brilliant prospects held out to us by manufacturers and exporters in the United States.

Our orders were not inconsiderable, and we took great pains to advance our purpose of establishing a large trade in American goods.

So far as the outward forms and shapes of many of the articles went we generally found them very elegant, and discovered many most practical improvements in some of them, but their capacity, as represented in different catalogues, has been very often overdrawn. On this account we experienced much disappointment, for on making sales of such articles, on the expressed conditions of their being fully up to what was stated in the catalogues, and it being afterwards found not to correspond therewith, has caused us many and frequent difficulties with our customers.

When the prices of most of the American articles are compared with those of European manufacture, taking into consideration their respective qualities, it will be seen that in many cases the prices for the American articles are much higher (without taking into account the charges for freight, &c.) than on goods from England, France, or Germany.

The distance between this country and the United States forms another drawback to the establishment of an extensive and satisfactory trade in goods such as we deal in, for when the goods are unpacked they are sometimes found to be damaged, or that certain parts are missing, and it takes many weeks before the damaged or missing parts can be supplied. Then again it is absolutely necessary for us to keep always in stock a large supply of loose and spare parts, such as are apt to wear out; this for the convenience of our customers. At such a distance this is impossible to attain at a short notice.

In this connection we deem it proper to remark that we have found the strength of inferior parts in some manufactures to be far from what it ought to be, for the simple reason that they use cast iron in their manufacture instead of strong wrought iron.

Without extending any general views on the subject, we particularize our experience as to certain goods as follows, viz:

Steam-engines.—American steam-engines are generally handsomely constructed, but their actual power when compared to their quoted nominal horse-power is so small that they cannot compete with English engines, which always develop a much greater amount of power. When calculating with the real capacity as a basis, a first-class English steam-engine can be purchased for about half the price of an American one.

Lathes and other implements for working iron.—Their mode of construction does not suit the taste of the Dutch workingmen, who are thoroughly accustomed to English tools, and a larger trade in them is obstructed from their price being so great in consideration of their usual capacity.

Wood-working machinery.—If American wood-working machinery were of greater strength and solidity, so that it would not so easily break down and wear out, and if, furthermore, the manufacturers would have some regard as to the kinds of wood worked here, a much better market for such machinery might, perhaps, be established. At present the English machines for wood-working purposes are greatly preferred, as they are much stronger, and are furnished by the English makers with more regard to the timber in use here. We must, however, say that American hand-saw machines,

boring machines for hand-power, and other smaller implements are in fair demand, and when sold generally give satisfaction.

Washing, mangling, and wringing machines are held at too high a price, and are consequently but rarely sold. Some well-constructed machines, to be worked by steam-power, introduced by our firm, would be more generally used if it were not for the great difference in the manner of working them, when compared to that in vogue in our large laundry establishments.

Coffee-mills are now disposed of in considerable numbers, and give general satisfaction.

Steam-pumps.—The ingenious construction of this article of American manufacture, and its many other advantages, are fully recognized and appreciated.

Hand-pumps are also found to be of a superior make, and prices generally found to be acceptable. They are readily sold, but at the same time their quoted capacity is very much overdrawn.

Agricultural implements.—A brisk trade was going on a few years ago in mowing-machines, and the "Buckeye machines," introduced by us, were preferred to all other "mowers," but our farmers abandoned their use on account of their rapidly wearing out in certain parts and on account of the consequent delay, trouble, and expense in keeping them in good working order.

Hay-rakes, hay-makers, &c., are well liked by our agricultural population, and their prices are low enough, but many complain that they are too light to handle and are not durable enough for our heavy soil.

One of the main reasons why the trade in American agricultural implements has not been maintained is because it would compel the dealers therein to constantly keep in stock too large an assortment of spare parts, so as to be enabled, especially in harvest time, to serve their customers at the very shortest notice.

Blacksmiths' and other tools.—So far as such tools have come under our observation they have been found to be of superior quality and finish, and we could do a much more extensive trade in them if their prices were more in proportion to their real value as determined by comparison with the prices at which the excellent English and the more ordinary or poorer German tools are obtainable.

Coffee hulling and polishing machines.—A long-felt want of improved machines for hulling and polishing coffee has lately been supplied by the introduction here and at Rotterdam of the "Santa Cruz Coffee Huller," manufactured at Lynn, Mass. They are now in operation, and the indications are that they will give complete satisfaction.

In concluding this statement we cannot omit to mention one other difficulty connected with the importation of implements and tools from the United States. On various occasions, and after having introduced and created a demand for certain articles, our orders for a fresh supply of the same could not be filled, and we were informed that such articles had altogether ceased to be manufactured in the United States. American manufacturers of such articles, as well as those who use them, may be prepared to abandon the use of a certain implement or tool easily and adopt another for their work, but a more conservative people, such as ours, are far from being so ready for innovations on such short notice.

So far as I am able to judge it would appear that the foregoing statements of Messrs. Landré & Glinderman fully deserve the attention of our manufacturers and exporters of machinery, implements, and tools, as they may probably be equally applicable to other markets as well as to those of Holland.

Whilst I do not consider the firm to be prejudiced in favor of American trade, I confidently believe it states its experiences and gives its opinions on the subject in perfect good faith, and being entirely independent in its business of manufacturers or exporters, would just as readily import largely from the United States as from any other country, providing it should be equally or more to its own interest to do so, or if it could be seen that by so doing a solid, enduring, or permanent advantage could be obtained.

Consular reports on this subject seem never to be complete without an allusion to the manner in which our exporters pack and ship their goods to distant countries. I have, however, the satisfaction to state that a great improvement in this respect is noticeable in shipments to this country. Persistence therein, and, if possible, still further improvement, cannot be too often or too highly recommended.

Complaints are often heard and much injury is done to the trade by

the common practice of substituting one article for another in the filling of orders. Orders should always be filled precisely as given, and in no case should any other be sent, no matter whether equally good or not, or even better than the article called for, without previous notice to and first receiving from the merchant and customer a new order for the other article.

All charges connected with the shipment of goods should always be as moderate as possible, and more especially in respect to shipments of common and cheap goods. The frequent occurrence of exorbitant charges on such goods gives rise to a suspicion that exporters attempt in this way to make up for what otherwise would be too small a profit on the goods themselves.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, February 7, 1882.

EXPORT OF AMERICAN CATTLE AND SWINE TO CANADA.

REPORT BY CONSUL PAGE, OF PORT SARNIA.

I have the honor to acknowledge the receipt of Department dispatches Nos. 186 and 187, dated December 9 and 13, 1881, respectively, the former inclosing a copy of the order of the governor-general of Canada in council of April 23, 1880, prohibiting the importation or introduction, save in bond, of American cattle or swine into the provinces of Ontario, Quebec, New Brunswick, Novia Scotia, and Prince Edward Island; and my attention is called to the fact that notwithstanding this order, the Bureau of Statistics of the Treasury Department reports that during the year ending June 30, 1881, there were exported from the United States to the Dominion of Canada 58,036 hogs, valued at $382,042, and 5,568 horned cattle, valued at $136,574. I am directed to report to the Department whether those cattle and swine were entered in bond in accordance with the Canadian order of prohibition.

In reply, I would most respectfully state that I have given this subject close attention since receiving the Department dispatch of inquiry, and I have found some difficulty in making satisfactory investigations, owing to the fact that no record is kept at the Canadian custom-house at this port of merchandise in transit through the Dominion to the American frontier, or of merchandise *in bond* consigned to interior ports or places in Canada. I find, however, by reference to the records of the Grand Trunk and Great Western Railways that American cattle and swine are frequently transported by these lines of conveyance to the ports of Toronto, Montreal, and Quebec, and upon inquiry I am informed by Her Majesty's collector of customs at this port that these importations are permitted by the Dominion Government under regulations prescribed by the honorable minister of customs, the shipper declaring that the animals are intended for immediate slaughter.

The extent of this trade can only be ascertained by reference to outward foreign manifests furnished by the railway authorities to the American collectors of customs at the ports of embarkation, and it was doubtless from this source that the Bureau of Statistics of the Treasury Department obtained the statistical information in reference to this

class of importations. These animals, I have no doubt, are slaughtered at the ports or places to which they are consigned under official surveillance, but as to how much of their product is held in Canada for domestic use, and what proportion is exported to Europe, I have no means at hand to ascertain.

SAMUEL D. PACE,
Consul.

UNITED STATES CONSULATE,
Port Sarnia, Canada, December 31, 1881.

AMERICAN VS. SWISS SILK MANUFACTURES.

REPORT BY CONSUL MASON, OF BASLE.

The digest of the invoice book of this consulate shows the aggregates of declared exports from this consular district to the United States during the fourth quarter of 1881, and during the whole of that year; from which it appears that while the exports during the fourth quarter of 1881 exceed those of the same quarter of 1880 by $127,970, the aggregate of the entire year 1881 falls below that of the previous year by $581,601.02.

This decline is almost wholly confined to silk ribbons and silk tissues, both of which were greatly affected during the first and second quarters of 1881 by adverse fashions, which demanded plushes, and *ombré*, or shaded goods, which, for want of the requisite machinery, could be manufactured in this district only in limited quantities.

It is also to be remarked that the prices of raw silk, and consequently of silk manufactures, have ruled from 4 to 8 per cent. lower during the latter months of 1881 than during the corresponding part of 1880, so that the diminished total value of the silk goods shipped from this district probably represents only the decline in value of the merchandise, the weight or quantity actually exported to the United States being about the same.

During the latter part of 1881, however, the use of ribbons has again become general, and not only do the exports of those goods for the fourth quarter show an increase over those of the same period in 1880, but there is a certain prospect of large shipments for spring delivery.

It may be stated without qualification that the ribbon manufacturers of this district are now engaged upon contracts which will enlist their entire capacity until the latter part of March. Many of these forthcoming goods are for German and English purchasers; but at least the usual proportion of 40 per cent. of the whole are for American importers.

The rapidly growing competition of American manufacturers has nearly destroyed the manufacture of silk tissues in this district, the decline of exports to the United States being from $209,963.09 in 1880 to $107,116 in 1881.

In plain silk ribbons also, particularly the best qualities, in the production of which the cost of material constitutes a large part, and that of labor a small part, of the entire expense of manufacture, the American makers offer a continually increasing competition, and have already, to a great extent, driven the ribbon makers of Basle and Saint Etienne into the field of elaborate patterns and novel styles, which require the agency of cheap skilled labor, a commodity in respect to which Euro-

pean manufacturers have a decisive and probably permanent advantage over their American rivals.

In this connection it is significant that the export list of this consulate during the past quarter reveals shipments to the United States of raw silk to the amount of $23,108.60, this being, so far as the records show, the first recent export of that material from this district.

The most suggestive feature of this exhibit is, however, the steadily growing export of aniline colors, which shows for 1881 an aggregate of $183,297, as compared with $105,455 during the previous year. This steady and unvarying growth has been frequently alluded to in these reports. Although increased production and greatly-strengthened competition have curtailed the enormous percentage of profit that formerly attached to aniline manufacture, the business is still highly lucrative, and every analine laboratory in this district is rapidly extendnig its variety of products and its capacity of production.

The export of watches during 1881 shows the very large aggregate of $1,939,104, being an increase of $205,452 over the shipments of 1880. Of these goods it may be said that a very large proportion have been watches and materials of either a low grade or the very highest quality. The reason for this is that while the American watch manufacturers have excelled in the production of all medium or intermediate grades of watches—that is, durable and exact timekeepers in plain cases—the Swiss manufacturers have retained their long-established supremacy in the fine and elaborate chronometers, which are the product of the highest grade of skilled labor. At the same time they are rapidly regaining their lost ground in supplying the apparently unlimited American demand for watches whose only merit seems to consist in their cheapness.

Machine-made watches in nickel cases, invoiced at from 9 to 15 francs each, now constitute a large proportion of the watch shipments to the United States.

Especial care has been taken during the past year to compare and verify the invoiced prices of these goods, and it is believed that, with trifling exceptions, they are entered at uniform and equitable values.

FRANK H. MASON,
Consul.

UNITED STATES CONSULATE,
Basle, December 31, 1881.

TRADE AND COMMERCE AT ACAPULCO, 1881.

REPORT BY CONSUL ~~EDSTON~~. Swiss

BRITISH VS. AMERICAN COTTON GOODS.

I have for some years past reported a greatly increased activity on the part of our manufacturers and merchants to make themselves and their products known throughout this country by means of pamphlets, samples, and patterns; agents for the better introduction of American products and manufactures have established themselves at the city of Mexico, the capital and commercial center of the republic, the importance of which, since the completion of the railroad connecting Mexico with Vera Cruz, has greatly increased, and still continues to increase to the utter detriment of the ports of the west coast, which, owing to high rates of freight and loss of time consumed by a long voyage by the

Isthmus of Panama, and even round Cape Horn, in most cases cannot compete any more with their rivals at Vera Cruz, Pueblo, and Mexico, who now supply all the interior which formerly depended on Acapulco for its wants of foreign goods. Acapulco for this reason has lost all its former importance as a port of import, and possesses at present only a local trade, depending solely on the traffic created by the steamers of the Pacific Mail Steamship Company plying between San Francisco and Panama, which touch here twice a month either way, and on the annual cotton crop of the surrounding coast districts.

Several attempts have been made to import American cotton fabrics, principally bleached shirtings and sheetings and prints, but without any success so far, the Manchester article of the same quality and same price being still better "finished" and more pleasing to the eye of the people here.

I here would call the attention of American manufacturers to the several conditions of "finishing" and packing which in a great measure establish the superiority of the Manchester fabric over our own manufactures. Printed cotton cloth, the principal staple article here of Manchester manufacture, possesses firstly a particular luster and stiffness, called "swissing," without showing to the eye the starch or gum, also used by the American manufacturer in the production of the said article and by the same process the dullness which appears in our article is entirely overcome by the Manchester manufacturer. This very much enhances the beauty of the article and facilitates its sale. The Manchester manufacturer or commission merchant accommodates his customer by assorting the patterns as desired by the purchaser, and pieces are of a uniform length of 24 yards each, which latter circumstance greatly facilitates trade with ignorant people who do not want to be troubled with calculating the value of a bolt of cloth. Bales put up by the Manchester exporter are compressed and well fastened by three or more iron hoops, of 180 pounds each, containing 50 pieces of prints each, their inner wrappers being made, so to say, impermeable. In this condition goods can be transported to the interior on mules without any danger or trouble, whilst large heavy packing cases, as used generally by American exporters, are very often damaged and even broken into, and, if they arrive safe, are unfit to be forwarded on mules, and are the cause of additional expense for repacking the goods.

The American manufacturer will only obtain his full share of the trade by complying strictly with the conditions above stated, which until now never have received the attention they really deserve.

Bleached shirtings and sheeting are always imported in pieces of uniform length, say 40 yards, packed in similar bales.

Brown cotton cloth (*manta*) is manufactured by mills in this country, and protected by high import duties on the foreign article.

GENERAL IMPORTS.

Common steel, called Milan-steel, packed in boxes of 150 pounds each, is solely imported from Europe; it is brought in rods, one-quarter or one-third of an inch square.

Of all other articles a fair share is imported here from the United States, in many instances the American article being preferred to any other.

EXPORTS.

As far as the exports are concerned, the following remarks may be made:

Fresh tropical fruit is the principal export article for San Francisco,

and the steamers of the Pacific Mail Steamship Company are the only carriers of the same.

Dry hides, deer-skins, ores, pearl-shells, &c., are shipped monthly to Europe to the correspondents and patrons of the houses here, who thus partly pay for the merchandise they import.

Cedar lumber is cut near the port of Sihuatanejo on a small scale for account of a San Francisco house.

FORESTS AND MINES.

The supply of Brazil-wood in the forests on the coasts of the states of Guerrero and Oajaca, as far as 50 miles from the sea, may be considered as exhausted, and it would not pay to bring it from a greater distance. The isthmus of Tehuantepec is the only place from where this article will be exported for about two years longer; it all finds its way to European markets; it costs about $20 per ton of 2,000 pounds, delivered alongside the vessel.

Although the country is rich in minerals of all kinds, and new mines are discovered and formally registered almost every day, as a rule these mines are not worked for want of the capital necessary to develop them. What little these mines produce, mostly silver, is sold at the city of Mexico. The silver mines of Guadalupe, in the Coast Range to the westward of Acapulco, some 60 miles distant from the port of Sihuatanejo, are for the present in the hands of an English company, which has already remitted some ore to Europe and intends to work steadily.

PEARL-FISHERY.

English diving apparatus and air-pumps are used. About 80 tons of pearl shells fished on the coast, east and west from Acapulco, by a vessel belonging to La Paz, do not appear among the exports as they were taken to Mazatlan. Other parties of Acapulco have but lately engaged in this business, and have as yet exported but few shells and pearls.

According to the annual returns of imports and exports the former appear to exceed the latter very materially, but I would state that a large portion of the product of the cotton crop is applied towards covering the difference, as well as sundry amounts which are paid in the city of Mexico for account of the Acapulco merchants; also the coals imported are received by steamers of the Pacific Mail Steamship Company and vessels of war as fuel, nothing figuring among the exports in their place.

STEAM COMMUNICATION.

This part of the coast depends entirely upon the steamers of the Pacific Mail Steamship Company for communication with foreign as well as with the other Mexican ports. The steamers of this company, making two monthly trips between San Francisco and Panama, touch on every voyage either way at Acapulco and Mazatlan, and on one round voyage only at Manzanillo and San Blas. One of their steamers also makes a monthly voyage between Panama and Acapulco, touching at all Central American and Mexican ports, receiving from and delivering to the through steamers passengers and freight from and for ports where the latter do not touch. The amount of freight thus transshipped at Acapulco for the last year was 3,538 tons Central American and Mexican produce, and 3,795 tons California produce. The Mexican Government pays to the Pacific Mail Steamship Company for the per-

formance of this service and for carrying the Mexican mail a monthly subsidy of $2,500.

As the Pacific Mail Steamship Company performs this Mexican coast service without much additional expense, or loss of time, no other company could compete with it; out of this circumstance has grown a monopoly, which injures the trade of this coast with New York, as rates of freight between this coast and New York are comparatively higher than the rates between the coast and Europe, which are low on account of competition between European steamship lines plying between Europe and Aspinwall.

The vessels belonging to the port of Acapulco are but three, one schooner and two sloops, engaged in the immediate coasting trade to Sihuatanejo and the barra de Tecoanapa.

JOHN A. SUTTER, JR.,
Consul.

UNITED STATES CONSULATE,
Acapulco, Mexico, January 3, 1882.

AMERICAN COTTON GOODS AT CHIN-KIANG.

REPORT BY CONSUL SMITHERS.

In my report of October last I included statistics showing the increase in the importation of American cotton manufactures at this port during the past five years, the only exception being for the year 1880, when there was a slight decrease in the importation of American drills, which I attributed, from information derived from a resident merchant, to a failure in the crops. In a report emanating from the office of the inspectorate-general of customs for China, recently published, a different reason is assigned to that given in my report for the decrease in the importations alluded to, which seems to have been general at all the treaty ports. As the information contained in the inspector-general's report may be regarded as reliable, I cannot do better than make the following extract from it:

It will be noticed that American drills fell off exceedingly in 1880. This decrease must not, however, be taken to indicate any serious diminution in the demand, which was on the contrary very satisfactory to holders throughout the year. It originated in America from some cause which resulted in short shipments to China, and those best informed on the subject are of the opinion that a supply equal to that of any previous year might have been advantageously imported.

In a review of the commercial situation at the port of Shanghai for the present year, which recently appeared in a leading public journal, the writer stated that the market of China had been greatly overstocked for a number of years with English cotton manufactures, while the supply of American cottons had not been equal to the demand. Considering the great efforts put forth by the merchants and manufacturers of the United States of late years to extend our trade with foreign countries, it cannot but be a matter of much surprise that they should have overlooked China. As stated in my annual report, the Chinese prefer our manufactures to all others, because they find them better and therefore cheaper. This fact is very clearly set forth in the following extract taken from a recent report of the commissioner of customs at Chin-Kiang:

On the whole, American manufactures have found a better market than Englian goods, during the past few years. American drills and sheetings were but little im-

ported here until lately; having been found more durable than the English manufactures, they have become more in request, and the falling off in the importations of the English goods is to a great extent attributed to their inferior quality alone. It is generally, and with some show of reason, argued by manufacturers and dealers in such inferior goods that the Chinese prefer cheapness above all things, and care but little, if at all, for durability and quality, and that in suiting such tastes there is no harm. But I am much afraid that English manufacturers if adhering to such ideas will discover, and at a similarly heavy cost, what German manufacturers found out some years ago, namely, that by following similar principles, their industries are ruined and left behind in the race of international competition. As has been shown, the Chinese have already begun to avail themselves of the chance offered them by the importation of the better class of American goods in preference to English goods, which previously held the monopoly. Their appreciation of these goods has continued steadily to increase, because though at first dearer they have proved to them to be the cheaper in the long run, on account of their greater durability.

The increasing demand for American cottons has undoubtedly incited unprincipled dealers to introduce a low class of English goods, marked as American. Circulars have been received at this port, during the present year, offering to supply any brand of American goods with their distinguishing trade-marks, the shipments to be made at Manchester.

I have been informed that a consignment of English drills, with American marks, recently reached this port from Shanghai, and was forwarded to the interior under transit pass. Should this practice be continued it cannot but be detrimental to American trade, for the ignorant consumer will be in many instances deceived in the purchase of a different kind of goods to that which he intended. The subject will be brought to the notice of the Commissioner of Customs, with the view of having, if possible, all goods bearing fraudulent marks returned to the country of their production.

E. J. SMITHERS,
Consul.

UNITED STATES CONSULATE,
Chin-Kiang, December 29, 1881.

TRADE OF MAZATLAN.

REPORT BY CONSUL KELTON.

The principal articles of importation from the United States are machinery, hardware, and glassware, coal-oil, cotton goods, mining powder, quicksilver, and in a much smaller proportion some groceries, drugs, perfumery, and stationery. The very high rate of duty on canned goods, amounting almost to a prohibitory duty (72 cents per kilogram, tin or glass included), occasions a very slight demand for such articles.

Until American manufacturers offer to the Mexican importers the same advantages as they obtain in Europe, in regard to long credits, as well as to uniform good quality, exact weight, and careful putting up, the demand for American goods will naturally be restricted to such articles as they cannot find in the European markets.

EXPORTS.

The successful working of several new mines has increased the production of silver, and, consequently, the exports show an advance; but a recent law taxing the exportation of ores will probably cause a falling off in future by preventing any but very rich ores from being exported;

it may even compel many mines to stop work altogether from want of capital to put up reduction works for such ores as are not rich enough to bear the tax.

The principal exports are silver coin and bullion, hides, ores, fruits, and dried shrimps.

AGRICULTURE.

Exceptionally abundant rains have, to a certain extent, compromised the prospects of the crops for this year, and the importation of considerable quantities of corn and cotton may become necessary.

The well-known insecurity of this harbor and the frequent loss of vessels while at anchor demand that the Federal Government appropriate funds for the construction of a breakwater, the cost of which is estimated at $600,000. Three foreign vessels have been wrecked in this port during the past year.

Mazatlan, although having the benefit of geographical position and a large established trade, has not so far attracted the attention of railroad concessionists, and there is no prospect at present of any of the new lines in project adopting this port as a terminus.

AMERICANS.

No increase has taken place in the number of the residents of this port, but to some extent in the interior of the state.

EDWARD G. KELTON,
Consul.

UNITED STATES CONSULATE,
Mazatlan, Mexico.

Statement showing the imports and exports between Mazatlan, Mexico, and the United States during the year 1881.

Articles.	Value of imports.	Value of exports.
IMPORTS.		
Agricultural implements	$11,890	
Beer and wines	23,760	
Candles	24,726	
Canned goods	9,692	
Cotton manufactures	119,456	
Coal-oil	48,670	
Fire-arms	21,560	
Groceries	87,400	
Hardware	53,000	
Lumber	16,000	
Machinery	45,980	
Powder	70,000	
Sewing-machines	5,680	
Quicksilver	90,000	
Miscellaneous	49,713	
EXPORTS.		
Bullion and specie		$3,663,241
Brazil wood		61,859
Hides		36,571
Ores		208,040
Miscellaneous		8,572
Totals	677,527	3,978,283

THE TRADES OF DUNDEE, 1881.

REPORT BY CONSUL WINTER.

THE LINEN TRADE.

The following table shows the imports of the raw material into Dundee during the years mentioned, required for this branch of industry:

Years.	Flax.	Tow and codilla.	Years.	Flax.	Tow and codilla.
	Tons.	*Tons.*		*Tons.*	*Tons.*
1871	39,391	11,544	1877	33,256	10,709
1872	34,053	6,583	1878	22,123	5,461
1873	32,782	6,145	1879	24,381	5,812
1874	36,074	7,778	1880	31,617	9,175
1875	22,572	6,500	1881*	21,496	6,940
1876	21,413	5,563			

*Nine months ending September 30, 1881.

It will be seen from this table that the imports were the largest last year since 1877. This year does not show up so well, and will probably be considerably short in the amount compared with 1880. The falling off this year is attributable to a certain extent to the unusual severity of the past winter and the consequent late opening of the navigation of the Baltic. One hundred and thirty-six vessels, of 61,638 registered tons, brought the flax and tow and codilla direct from the Baltic to Dundee in 1880. In 1879, 115 vessels, of 43,211 tons, carried this material. Steamships are principally chartered for this trade, and Dundee owned steamers are largely engaged in this employment during the year.

Prices of flax 30th September, last year, were high and stood unchanged for a month, when they rose 10*s.* per ton, and remained unmoved up to the end of March of this year, when they began to decline. At that time they fell £1 per ton, and another month saw them fall again £1; and a month afterwards they dropped £1, and a fortnight subsequent £1 more. Since the middle of June last, they remained firm, and stand on an of average from 7 to 10 per cent. below that of last year's quotations, as will be observed from the following table, which shows the prices of flax, tow, &c.:

Description.	September 30, 1881.	September 30, 1880.
	£. s. £. s.	£. s. £. s.
Riga:		
Flax K ..... per ton..	28 00 to 29 00	31 10 to 33 00
Flax W ..... do....	27 00 to 28 00	29 00 to 30 00
Flax LD ..... do....	24 10 to 25 10	26 00 to 27 00
St. Petersburg:		
Flax, pava, 12 heads ..... do....	31 00 to 32 00	32 00 to 33 00
Flax, longa, 12 heads ..... do....	29 00 to 30 00	29 00 to 30 00
Archangel:		
Flax, 3d brown ..... do....	41 10 to 42 10	46 00 to 47 00
Flax tow, No. 1 ..... do....	33 10 to 34 10	36 00 to 37 00
Flax codilla No. 2 ..... do....	29 10 to 30 10	30 00 to 32 00
Pernau:		
Flax D ..... do....	33 00 to 34 00	36 00 to 38 00
Flax codilla ..... do....	25 10 to 26 10	25 10 to 26 10
Memel:		
Flax, 4 brand ..... do....	28 00 to 29 00	30 00 to 31 00

The crop of flax for 1881 is considered to be quite an average one. In some of the districts of Russia it is rather poor, the plant being short, but generally speaking it is plentiful and of fair quality and length, so that it is anticipated that linen manufacturers will be able to purchase their raw material at reasonable rates during the coming year.

This year there has been a decrease of linens exported from this consular district to the United States as compared with last year (see statement of exports table, already given). But it must be borne in mind that last year the export was exceptionally large. This year, although less than last year by $399,084.12, still stands higher than the years previous to 1880. Throughout the past year up to July of this year there has been a want of life in the linen trade, the sail-cloth branch being particularly languid, and the absence of inquiry and demand has had the effect of keeping prices at the minimum for nearly all classes of goods.

About the end of last year there was some talk about short time amongst the linen manufacturers, as stocks were accumulating, the result of production being in excess of demand, but no action was taken in the matter. Since July orders have been coming in more freely for the home trade. The United States have not bought extensively this year, except some specialties. On account of this important market only taking a moderate quantity of goods, the business doing has just been steady, and consequently makers have been scarcely able to obtain improved prices.

Linen manufacturers are employed supplying a fair demand, and a better business with higher prices is expected soon from (the hopes of) a good spring trade with the United States.

PAPER STOCK.

There has been an enormous falling off in the export of this article from this consular district to the United States during the past year. It is very singular that the decrease this year is just about the same (a little more) as the increase last year (see under-noted table). Last year the export was really extraordinary, and was felt by those in the trade to be overdone. Much as this year's export is below 1880 in value, yet it is almost equal to that of 1879, which was greatly in advance of all previous years.

The following table shows the value of paper stock exported from Dundee to the United States:

Years ending September 30—	Value in United States gold.	Increase over previous year.	Decrease over previous year.
1874	$2,175 00		
1875			$2,175 00
1876	1,225 40	$1,225 40	
1877	68,897 37	67,671 97	
1878	71,977 70	3,080 33	
1879	210,953 16	138,975 46	
1880	553,396 75	342,443 59	
1881	208,322 38		345,074 37

From this table it will be seen that the practical commencement of the export of paper stock from this quarter to the United States was in 1877; the stock sent before that period was quite trifling in value. It may be

noted that whereas last year a good many sailing vessels were chartered here for New York and loaded with this article, there has not been one this year. This is due no doubt to the low freights current by the ordinary Atlantic steamers, and also that there are now regular steamers trading between Dundee and New York carrying goods at the lowest rates. There is a fair trade being done by the principal Dundee paper-stock merchant with the United States, and the business is considered improving, and likely soon to be even better. This gentleman's premises are very extensive and provided with the best machinery and appliances for conducting his business. All the bales shipped by him are packed by hydraulic presses.

SHIP-BUILDING TRADE.

Of the 15 vessels launched here in 1880, 13 were steamers, 11 iron, 1 of steel, and 1 of wood. The other two were sailing vessels, one of iron and one of wood. Ship-building was very stirring from January 1 to September 30, 1881, during which time 10 vessels, of 10,137 tons, were launched, all iron steamers. Notwithstanding the considerable activity in the different yards during the year, shipwrights were not fully employed, owing to the vessels built being almost entirely constructed of iron, and the repairing of wooden vessels in the graving-docks being much under the average of late years.

The whaling fleet being all wooden vessels, require a yearly overhaul, and this causes a good deal of work for these tradesmen.

A number of the vessels built here during the past two years have been of large tonnage (one of them 2,360 tons gross), and splendid specimens of marine architecture, beautiful in the symmetry of their build, and elegant in their internal furnishings, besides being fitted up with the latest improvements in labor-saving machinery. There is on the stocks, well advanced, a screw steamer of about 4,000 tons gross register, constructed completely of steel. She is to be propelled by engines of 460 horse-power, nominal. This vessel will be the largest ever built here. Dundee ship-builders are making marked progress in their art by bringing the best scientific and practical skill, as well as improved machinery, to their aid, and are taking a prominent position in the construction of ships of the desired stability, form, and good speed at sea. The prospects for the coming year are exceptionally good, especially for iron vessels. The following is a statement of the number of vessels launched since 1871 at Dundee:

Years ending December 31.	Launched.		Years ending December 31.	Launched.	
	Number of vessels.	Tonnage.		Number of vessels.	Tonnage.
1871	11	9,400	1877	18	12,135
1872	13	13,049	1878	12	11,121
1873	10	9,293	1879	14	12,384
1874	11	11,165	1880	15	15,621
1875	23	14,998	1881*	10	10,137
1876	23	15,356			

* From January 1 to September 30, inclusive.

Knowing that their employers are pushed for labor, ship-building workmen are demanding higher wages, and in one large yard a partial strike has taken place to attain this end. Better terms are generally

being conceded to the men, and those engaged in piece work are making from $15 to $20 per week of 54 hours. Men are scarce for some departments, and there is work for more than the hands employed.

The following table shows the wages paid to artisans engaged in shipbuilding in Dundee, Scotland, September 30, 1881:

Branches.	Per week.	
	Hours of labor.	Wages (average) in U. S. money.
Ship: iron-riveters, piece work	54	$12 50
holders-on, piece work	54	10 00
iron-workers, laborers	54	5 00
carpenters, wood	54	7 00
wrights, wood	54	7 00
carvers	54	12 00
smiths	54	7 50
foremen, or overseers	54	12 50
draughtsmen	54	10 00

ENGINEERING AND IRON-WORKING TRADE.

On the whole, these trades have been dull during the past year, with some brief periods of exceptional activity. The marine engineering department has, however, been pretty busy, owing to the large number of steamers of good dimensions that have been built in Dundee.

The prospects for the coming year in this business, excepting in the marine engineering shops, are considered very unsatisfactory. The wages of boiler-makers have advanced about 75 cents per week during the past year, but those of other iron-workers are lower, say 25 cents per week, than last year. The following is a statement showing the hours of labor and the average wages paid per week to the workmen engaged in the engine and machine making trade in Dundee, Scotland, in 1881:

Branches.	September 30, 1881.	
	Hours of labor.	Average wages in United States gold.
Pattern-makers	54	$7 25
Molders	54	7 75
Engine-fitters and finishers	54	6 25
Machine-fitters and finishers	54	5 75
Iron-turners	54	6 75
Blacksmiths	54	7 00
Boiler-makers	54	7 50
Laborers	54	4 50
Foremen or overseer	54	8 00

HOUSE-BUILDING TRADES.

These trades were not busy during the past year, but a fair amount of work was done in erecting substantial edifices of some architectural pretensions in new streets. There is some talk of a few public buildings going on, but as yet this is not decided upon. Villas, in one part of the town, are the only dwelling-houses being proceeded with. To all appearance the prospects of the building trades are not such as to warrant the belief that they will be active during the coming year, as all

public works of importance are nearly finished, which have been in progress for some years, and the town is already well supplied with workmen's houses. These tradesmen may expect a fair share of work in completing buildings going on in new streets. Throughout the year there have been no strikes amongst the workmen, but once or twice there has been a demand made for higher wages, and in some cases this has been conceded to the extent of 1 cent per hour of advance. The following is a statement showing the hours of labor and the wages paid per hour and week to the workmen employed in the building trades in Dundee up to September 30, 1881:

Branch.	Wages per hour.	Per week.	
		Hours of labor.	Wages in United States money.
	d.		
Bell-hangers	6½	51	$6 90
Bricklayers	7	51	7 50
Bricklayers' laborers	5	51	5 31
Builders of stone	6½	51	6 90
Builders of stone, laborers	4½	51	4 52
Hewers or stone-cutters	6½	51	6 90
Hewers' or stone cutters' laborers	4½	51	4 52
Carpenters, house, or joiners	6	51	6 37
Gasfitters and plumbers	7	51	7 50
Glaziers	6	51	6 37
Lath-splitters	6½	51	6 90
Painters	6½	51	6 90
Plasterers	6	51	6 37
Slaters	6½	51	6 90
Stone-carvers	9	51	9 81
Foremen or overseers		51	8 75

BOOT AND SHOE MAKING BY STEAM MACHINERY IN DUNDEE.

This industry, which is only of about 15 years' growth in Dundee, is continuing to succeed and is becoming firmly established. The three or four steam boot factories in this town employ a large number of men, boys, women, and girls, who turn out an immense quantity of boots and shoes every week. A very substantial pair of boots may be purchased here for from $3 to $4, and there are kinds at half of these prices. The cheaper quality commands a large sale, for, although they do not wear so long as a better article, yet in appearance and style they look as well. Men and boys engaged in this trade generally are paid by piece work, and make, for men, from $6 to $10, and for boys, from $2.50 to $5 per week, according to ability. Women make about $3.50, and girls, about $2 per week. The week's work is 56 hours. United States leather, especially the finer qualities, is now a good deal used in Dundee boot factories, and can be bought just now at reasonable rates. This trade has been very busy all through the past year and remains fairly active, but orders are not coming in so fast this year as last; accordingly the prospects for the coming year are not so promising as at this time last year.

CONFECTIONERY AND PRESERVES

is a business that goes on steadily prospering here. A large firm in this town has farther added to their honorable list from numerous exhibitions by taking the highest award for confectionery at the Melbourne Exhibition. In preserved fruits and other preparations the local manufacturers gained equal honors with this firm. But in the quality and beauty of their confectionery the Dundee firm outstripped all rivals,

European or Australian. Dundee has a number of houses engaged in this trade, but the firm alluded to has by far the largest and most complete work in every respect. They do a large home and export business, and employ a large number of hands, principally females, at average wages of $2.50 per week for 54 hours' work. It is surprising how cheap preserves of all kinds are produced in Dundee. The makers get the most of their fruit direct from the continent, at low rates for the material and freight, and are thus enabled to compete sharply with others in the trade. The industry is extending, and seems to have a firm footing in Dundee.

JOHN F. WINTER,
Consul.

UNITED STATES CONSULATE,
Dundee, Scotland.

SCOTCH RAILWAYS.

REPORT BY CONSUL WINTER, OF DUNDEE.

The capital expended up to July 31, 1881, by the three principal Scotch railways was £36,696,619, £31,472,977, and £10,226,664, respectively, and the estimated further expenditures are £1,955,823, £1,116,063, and £965,256, being a total capital expenditure, including the estimated future expenditure, of £82,433,402 for these three leading lines. Their gross revenues for the first six months of this year were £1,357,713, £1,175,224, and £531,277; total, £3,064,214. The total expenses being £721,718, £586,083, and £260,976; total, £1,568,777. For said half year one of these lines maintained 761¼ miles, and has expended £130 per mile on maintenance and renewal of permanent way, as against £114 for the corresponding period of last year. One, 329¾ miles, and has expended £128 per mile, as against £126. And the other 981¾ miles, but has only expended £91 per mile, as against £99. For said half year the net revenues were £702,984, £617,065, and £285,721; total, £1,605,770, compared with £707,913, £579,201, and £282,900; total, £1,570,014, for the corresponding period of last year; and after providing for interest on debentures, rents, and dividends on guaranteed and preferred stocks, the amounts available for dividend on the ordinary stocks are 3½, 2, and 5 per cent. per annum, against 3¾, 1, and 5 per cent. per annum for the corresponding period of last year. These figures indicate an improvement in the dividend-earning powers of these three companies, as had it not been for the severe weather during the earlier part of the year higher dividends would doubtless have been shown. The weekly traffic returns are showing satisfactory increases and augur well for the current half year.

The total capital invested in railway property in Scotland is upwards of £90,000,000, of which about £20,000,000 have been raised by loans and debenture stock. The authorized capital is beyond £98,000,000, and the share capital presently amounts to above £70,000,000, and the loan and debenture stock to upwards of £22,000,000. The total gross receipts of the whole of the Scotch lines annually is nearly £7,000,000, and the working expenditure nearly £3,600,000. The average working expenditure is 52 per cent. for the Scotch lines, and 51 is the average of all the railways together in the United Kingdom and Ireland. New branch lines are being proposed to be constructed in Scotland, two of them in this immediate locality.

A select committee has been appointed by Parliament to inquire into

the charges of the railway companies throughout Great Britain, as it is alleged, principally by agriculturists, that the companies have been in many cases overcharging for the carriage of their produce. This committee will certainly elicit a deal of information regarding the rates charged by these companies, and if they find out that rates have been charged such as Parliament would not have sanctioned, they will report so that legislation will follow to remedy the evil. The railway system of this country is now so complete that a speedy transit of goods ought to be had at reasonable rates. The opening of the Highland Railway and its branches has done a great deal in developing the resources of a part of Scotland comparatively inaccessible some years ago. Landed proprietors have undoubtedly been the greatest gainers by the enormous rise that has taken place in their rents. But farmers and fishermen in the far north have been also greatly benefited by this line transporting their produce, cattle, and fish to the southern markets expeditiously and at what may be termed low rates. The president, who is the chief shareholder of this railway, the Duke of Sutherland, has been in the United States this year to investigate the working of the railroads and generally to become acquainted with the immense commercial and agricultural development which is taking place there, and with the view of carrying out improvements in the management of the different lines with which he is connected in this country. He reports that he has learned many ways in which the American railroads are ahead of the English. There is a great difference in the weight of the luggage vans, and he was astonished when he saw a United States engine draw eighty loaded vans. Lighter vans he thought were a great necessity in England. The British Board of Trade issued a circular in 1877 in which it was estimated that three-fourths of the accidents that had occurred on the railway systems of Great Britain and Ireland might probably have been avoided, or the results materially mitigated, if the passenger trains concerned had been provided with continuous brakes, and recommending railway companies to adopt some such brake. All the Scotch lines have been supplied with these brakes, and the fact that these lines stand so well in regard to carrying passengers with so much safety is due in a measure to thus complying with the requirement of the Board of Trade. Pullman palace cars are becoming more in use in Great Britain every year, but one Scotch railway has withdrawn these cars both from its day and night service between Edinburgh and London. The reason of this action has not been stated but it is suspected it is because they have not been patronized so freely as was hoped for, and consequently did not pay.

JOHN F. WINTER,
Consul.

UNITED STATES CONSULATE,
Dundee, Scotland.

THE FISHING INTERESTS OF DUNDEE.

REPORT BY CONSUL WINTER.

SEAL-FISHING.

Nine steamers left Dundee for the Greenland seal-fishing in 1881; their catches were 12,721 seals, yielding 201 tons of oil. Eight steamers went

to this fishing in 1880; their catches were 29,100 seals, yielding 489 tons of oil; showing, for 1881, a decrease of 16,379 seals and 288 tons of oil.

Six steamers left Dundee for the Newfoundland seal-fishing in 1881; their catches were 139,985 seals, yielding 1,797 tons of oil. Five steamers went to this fishing in 1880; their catches were 58,940 seals, yielding 726 tons of oil; showing, for 1881, an increase of 81,045 seals and 1,071 tons of oil

Greenland, 1881, total catch 12,721 seals, yielding 201 tons of oil.

Newfoundland, 1881, total catch, 139,985 seals, yielding 1,797 tons of oil.

At both fishings, 1881, total catch, 152,706 seals, yielding 1,998 tons of oil.

At present the value of seal oil is about £29 per ton, while the skins average about 5*s*. each. Taking the 1,998 tons of seal oil got this year at £29 per ton, gives £57,942; and the 152,706 skins at 5*s*. each, gives £38,176 10*s*.; so that the total value of the seal fishing for 1881 is £96,118 10*s*. For 1880 it was computed at £52,385. There is therefore an increase for 1881 of £43,733 10*s*.

WHALE-FISHING.

Eleven steamers left Dundee for the Greenland whale-fishing in 1881; their catches were 48 whales, yielding 514 tons oil and 24¾ tons of bone. Twelve steamers went to this fishing in 1880; their catches were 712 whales (white, 600; black, 112), yielding 1,077 tons oil and 46½ tons of bone; showing, for 1881, a decrease of 664 whales, and 563 tons oil and 21¾ tons of bone.

The present selling price of whale oil is £33 per ton, and of bone £720 per ton. The value of the 514 tons oil got in 1881, at £33, would be £16,962, and of 24¾ tons of bone, at £720 per ton, £17,820. The total value of the whale fishing for 1881 is £34,782; for 1880 it was computed at £62,706; there is, therefore, a decrease for 1881 of £27,924.

Greenland and Newfoundland seal-fishings: Total value for 1881, £96,118 10*s*.; Greenland whale-fishing: Total value for 1881, £34,782; total value of both fishings for 1881, £130,900 10*s*. (From this sum the heavy expenses of the sealing and whaling fleet must be deducted.) Total value of both fishings for 1880 was computed at £115,091; accordingly there is an increase for 1881 of £15,809, which is attributable mainly to the success of the Newfoundland seal-fishing this year.

From the figures I have given it will be seen that the Greenland seal and whale fishings for 1881 have proved a failure, due, it is said, to the terribly severe weather that has prevailed in Greenland this season. Dundee is the headquarters of this industry in this country, and has fourteen excellent screw steamers, whose total tonnage is 6,999, and nominal horse-power 1,008, engaged in the fishing. In addition to this there was another vessel (steamer) of 396 tons, but she was lost this season in Davis Straits, but the crew were all saved and distributed amongst the other Dundee ships, which brought them home. All accounts concur in representing the weather experienced in Greenland this year as being exceptionally stormy. For weeks gale succeeded gale, blowing the vessels in upon a body of heavy ice, and some of them have thereby been more injured than usual this year. However, there has been no loss of life except from natural causes. Seventy to eighty men go to make up a Greenland sealer's crew, and one hundred and twenty to one hundred and fifty that of a Newfoundland sealer, and fifty for a Greenland whaler. From forty to fifty men accompany the vessels from Dundee, and the

others are got in Shetland and at St. John's, Newfoundland. These men are paid in wages about £2 per month, and an allowance of so much per ton as may be fixed upon for oil money. So that if the voyage does not turn out well, as is the case of the Greenland seal and whale fishing this year, the men and their families are badly off during the winter. Only two vessels will return anything to their crews in the shape of oil money this year. Formerly all the seal skins that came to Dundee had to go to London to be cured or tanned. One large firm engaged in the seal-fishing business here has been erecting commodious and improved premises for carrying on the tanning process themselves, and they have an immense stock of skins of their own to commence operations upon. This is a new industry added to Dundee. A matter of interest in connection with whale-fishing has been discussed this year, viz, the use of steam for propelling the vessels while on the fishing ground. The noise of the propeller scares the fish within a distance of a few miles, and a master of a ship, by ill-judged eagerness to approach a whale, may deprive a whole fleet of a rich harvest from the object of their common pursuit. An agreement between the captains of the Dundee ships regulating the use of steam to meet the necessities of the case was drawn out and subscribed by them, and was, it appears, fairly adhered to this year. The following is a complete detailed comparative statement showing the value of the seal and whale fishings to the community of Dundee (Scotland) for twelve years, and the yearly average value of value of same:

Years.	Number of steamers that went to the seal-fishing.	Number of steamers that went to the whale-fishing.	Number of seals caught.	Number of whales caught.	Yield of seal oil.	Yield of whale oil.	Yield of whalebone.
					Tons.	*Tons.*	*Tons.*
1870	9	6	45,450	61	870	760	43¼
1871	9	8	65,485	133	648	1,165	65⅓
1872	11	10	40,621	105	429	1,010	53⅞
1873	11	10	25,594	158	285	1,352	67½
1874	11	9	46,252	190	577	1,290	71½
1875	12	12	45,295	79	455	765	36⅞
1876	12	12	57,776	64	625	824	45
1877	13	13	76,000	*1,016	1,092	955	42½
1878	12	13	77,411	6	1,106	114	6
1879	15	13	96,710	68	1,168	729	38½
1880	13	12	88,040	†712	1,215	1,077	46½
1881	15	11	152,706	48	1,908	514	24½
Total	143	129	817,340	2,640	10,448	10,556	541⅛
							Tons. lbs.
Average per year	11¹¹/₁₂	10⅘	68,111⅓	220	870⅘	879⅞	45 205⅘

Years.	Average value of seal oil per ton.	Average value of seal skins, each.	Average value of whale oil per ton.	Average value of whalebone per ton.	Total value of seal fishing.	Total value of whale fishing.	Total value of both seal and whale fishings.
	£	s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1870	37	3 0	44 * 0 0	450 0 0	39,007 10 0	53,037 10 0	92,045 0 0
1871	33	3 6	37 0 0	500 0 0	32,843 17 6	75,930 0 0	108,773 17 6
1872	40	4 0	42 10 0	510 0 0	25,284 4 0	70,006 0 0	95,290 4 0
1873	40	3 6	43 0 0	460 0 0	15,078 19 6	89,048 0 0	104,126 19 0
1874	37	5 0	39 0 0	540 0 0	32,912 0 0	89,082 0 0	121,994 0 0
1875	34	7 6	36 0 0	500 0 0	32,455 12 6	45,765 0 0	78,220 12 6
1876	32	6 0	35 0 0	800 0 0	37,332 16 0	64,840 0 0	102,172 16 0
1877	32	5 0	35 0 0	1,400 0 0	53,944 0 0	92,925 0 0	146,869 0 0
1878	32	5 0	35 0 0	1,500 0 0	54,744 15 0	12,990 0 0	67,734 15 0
1879	30	5 0	33 0 0	1,200 0 0	59,217 10 0	70,377 0 0	129,594 10 0
1880	25	5 0	28 0 0	700 0 0	52,385 0 0	62,706 0 0	115,091 0 0
1881	29	5 0	33 0 0	720 0 0	96,118 10 0	34,782 0 0	130,900 10 0
Total	401	57 6	440 10 0	9,280 0 0	531,324 14 0	761,488 10 0	1,292,813 4 0
Average per year	33 1/12	4 9 1/12	36 14 2	773 6 8	44,277 1 2	63,457 7 6	107,734 8 8

* 81 black, 935 white. † 600 white, 112 black.

The foregoing statement is very complete and shows at a glance the revenue to Dundee from this industry. The statement has been compiled and calculated in this office. It is interesting to note the various particulars. For instance, it will be seen that on an average Dundee gains about £108,000 yearly by seal and whale fishing.

The extraordinary rise in the price of bone, and the equally great fall within the past two years, will be observed. Bone, it is thought, will be certain to rise this year, being scarce, owing to the small quantity, 24¾ tons, got this year, just about half what was brought here last year.

HERRING AND OTHER FISHING.

On the east coast of Scotland the past season's herring-fishing has been more profitable to the fishermen and curers than last year. There have not been the enormous takes of herring this year that there were last year; but in 1881 the fishing has been very successful, and the fish of excellent quality, indeed better even than last year. In 1880 the catch was unprecedented, and whole boat-loads of herring were sold for manure or returned to the sea because the curing could not be accomplished, as in most cases the curers were not prepared for so extraordinary a yield of fish, and had only an average stock of barrels and salt in hand. Nothing like this has happened this year; all the fish caught have been cured or disposed of, which has made the business satisfactory to all concerned, as prices have been good. In the Shetland Islands preparations are in progress for the extension of the herring-fishing. Curing stations are being erected, as it is believed around the coasts of these islands herrings are again to become plentiful. Forty or fifty years ago it was attempted to establish herring-fishing there, and some 300 boats were engaged in it, but since that time it has fallen off. It is hoped the present enterprise will end more propitiously. In 1880, Shetland cured 40,000 barrels against 8,000 in 1879, a surprising advance. The

total quantity of herrings caught in Scotland in 1880 was, on the east coast (this district), 1,201,105 barrels, and on the west coast 272,495¼; together, 1,473,600¼ barrels. The total quantity government branded was 689,286 barrels, and the total quantity exported 1,009,811½ barrels, being an increase over the preceding year of no less than 631,804¼ barrels in the quantity cured, of 346,963 barrels in the quantity branded, and of 463,818 barrels in the quantity exported.

In 1880 in the cod and ling fishing 155,745½ hundredweights (13,112 pounds) were cured dried, and 7,794¼ barrels cured in pickle. The quantity exported was 79,946 hundredweights cured dried, being a decrease from the preceding year of 6,619¾ hundredweights in the quantity cured dried, and 942½ barrels in the quantity cured in pickle.

In 1880 the number of fishing-boats in Scotland was 14,751, of fishermen and boys 47,131. The estimated value of the boats, nets, and lines used in the herring, cod, and ling fisheries was £1,288,508, an increase over the preceding year of 294 boats, 629 fishermen, and £47,319 in the estimated value of boats, nets, and lines. From these figures it will be gathered what a large and important industry this is to so small a country as Scotland.

JOHN F. WINTER,
Consul.

UNITED STATES CONSULATE,
Dundee, Scotland.

THE JUTE INDUSTRY OF DUNDEE.

REPORT BY CONSUL WINTER.

This is the great staple industry of Dundee and immediate locality. The jute imported direct from Calcutta and Chittagong (India) into Dundee from January 1 to September 30, inclusive, of the past year, shows an increase, compared with the corresponding period of 1880. During the said nine months of this year there arrived in Dundee from above-mentioned ports 66 vessels, of 93,261 tons, bringing 644,028 bales of jute. The arrivals for the same period in 1880 were 50 vessels, of 69,130 tons, bringing 481,362 bales of jute. Thus showing an increase for 1881 of 16 vessels and 24,131 tons, bringing 162,666 bales of jute.

The number of vessels on the passage from India to Dundee shows an increase in favor of this year, for there are now (September 30, 1881) 11 vessels, of 14,142 tons, at sea. At the same time last year there were 5 vessels, of 5,933 tons, at sea, which shows a balance in favor of 1881 of 6 vessels and 8,209 tons. This year there are chartered at Calcutta and Chittagong, with jute for Dundee, 38 vessels, of 54,014 tons. At same time last year there were 27 vessels, of 38,424 tons. Thus showing an increase for 1881 of 11 vessels and 15,590 tons.

All steamers en route from India, and three of the sailing vessels, are expected to arrive by the end of the year, so that the direct importation of jute from India into Dundee will probably be the largest ever recorded in the history of the trade. One steamer reported as having sailed from Chittagong for this port will be the first steam vessel that ever brought jute from that port to Dundee.

Jute freights from Calcutta this season have ruled from 55*s.* (say, $13.75) to 71*s.* 3*d.* ($18) per ton for sailing vessels via the Cape to Dundee, and from 60*s.* ($15) to 70*s.* ($17.50) for steamers by the Suez Canal. Latest

advices state that the freight market in Calcutta is firm. The following table shows the imports of jute direct and from all sources into Dundee for years mentioned:

Years ending 31st December—	Direct importation.			Total importation, all sources.
	Number of vessels.	Tonnage.	Bales.	Tons.
1870	26	30,317	207,208	81,740
1871	57	60,690	473,097	102,844
1872	77	94,450	649,677	127,190
1873	81	101,440	709,871	143,150
1874	62	77,401	523,197	117,875
1875	62	83,252	573,230	113,930
1876	63	87,540	582,249	118,571
1877	50	68,568	456,209	107,616
1878	72	97,353	658,585	128,508
1879	79	108,486	739,172	151,291
1880	60	81,131	579,635	139,962
1881*	66	93,261	644,028	125,209

*Nine months, from January 1 to September 30, 1881.

It will be seen from this table that, although the direct import of jute declined last year, the gross import from all sources was not so much behind the large year of 1879. This year, already, is well up, both in the direct and gross import, and will, with the cargoes of the vessels expected yet to arrive, doubtless show the largest direct and total import of jute in 1881 that has ever come into Dundee in any one year.

The large fleet of vessels engaged in this trade are generally all first-class ships of heavy tonnage capacity and many of them are steamers. Some of them make smart passages. The voyage from Chittagong to Dundee via the Suez Canal has been done by steamers in 40 days. Sailing vessels have completed the run from Calcutta to Dundee in 99 days, decidedly a quick passage. In the spring of this year one of these magnificent vessels was wrecked near Aberdeen and all on board drowned. This, however, is the first Dundee-bound Indiaman which has been lost on the Scotch coast since the direct import of jute began. Besides jute, these vessels bring from India linseed, castor oil, tea, saltpeter, iron, bones, bone-ash, linseed cake, ketool fiber, and coir yarn. The extraordinary and rapid development of the business of importing jute direct from India to Dundee speaks volumes for the enterprise and ability of the Dundee jute manufacturers and merchants. About twelve or thirteen years ago scarcely any jute came direct to Dundee, but rather through London or other ports in England. The wealthy jute manufacturers here, however, began to see the importance of getting their raw material direct from India. They knew if they had agents or houses (as many of them now have) in Calcutta that they could obtain every advantage by this method of conducting their business. Accordingly they have been energetic in fostering and encouraging this direct trade, and certainly they have been the gainers by so-doing, as they have got the best of the article at the cheapest price compatible with the current market rate, and so been able to compete favorably with manufacturers of jute goods elsewhere.

The price of raw or unmanufactured jute has kept high during all the past year. At 30th September last year the price per ton for best quality was from £18 10*s.* to £19 10*s.*; about the end of November following prices got somewhat easier and dropped 10*s.* per ton on all grades. In

a month afterwards they regained their former figure, and kept so for a week or two, when they took a sudden rise of £1 per ton on the three first grades, and have remained at this high standard unbroken during the rest of the year. Although jute this year has not touched the high rate of £21 to £22 per ton, as in 1879 and 1880, yet it is believed on the whole it has been dearer this year than last, as it has stood a longer time at the high rate attained this year than it did at the extraordinary price reached in 1880, which only lasted for two or three months. Since May the two lowest qualities of jute have remained cheaper in proportion than the best qualities. The low qualities stand lower in price now than they did last year at same time, as will be seen from the following table, showing the price of jute for 1880 and 1881 at time specified:

Description.	Price per ton.	
	September 30, 1881.	September 30, 1880.
	£ s. £ s.	£ s. £ s.
Fine	19 10 to 20 10	18 10 to 19 10
Good medium	18 10 to 19 10	17 0 to 18 0
Medium	16 10 to 17 10	16 0 to 17 0
Good common	14 10 to 15 10	15 10 to 16 0
Rejections and common	13 0 to 14 0	14 0 to 15 0

The rapid rise in price of jute within recent years (due no doubt in a measure to the quantity grown not being sufficient to meet the demand), together with the marked deterioration in the quality of the article, has induced the jute spinners of Dundee to endeavor to create new sources of jute production. There is not a country in Europe except Russia in which jute manufacturing is not now established. But Dundee, which first gave birth to the industry, still stands pre-eminent for its enterprise in the jute trade.

The whole of the jute used in Europe and India is now estimated at 2,000,000 bales. Of this quantity Great Britain takes about 1,100,000, other European countries 400,000, and India 500,000. Almost all the jute—say, nine-tenths—that comes into Great Britain is consumed in and around Dundee. This shows what an important industry it is for this locality, and more especially for this town, and how it ought to be carefully watched and guarded. As an instance of the remarkable rise in the value of jute, it may be mentioned that in the early days of the trade prices in Calcutta seldom exceeded 12 rupees per bale of 300 pounds, and for a series of years the average was rarely over 16 rupees. Prices have, however, steadily advanced (even during the years 1874, 1875, 1876, 1877, and 1878, when there was a falling off of the imports into Dundee) until last year they reached as high as 37 rupees per bale of 350 pounds, and the quality, instead of corresponding to these extreme prices, has rather been becoming inferior. For these reasons, the jute manufacturers here have been led to consider the necessity of stimulating the business of jute-growing in other countries than India. Egypt was believed, from the nature of its soil and climate, to be a country well adapted for the growing of jute.

Accordingly, fully two years ago a number of Dundee jute manufacturers formed a committee and subscribed a sum of money to carry on experiments in jute cultivation in Egypt. They engaged a practical and intelligent gentleman, who was sent out under their auspices to undertake the task of attempting to introduce jute culture into that part

of Egypt where the conditions of soil and climate presented themselves in form analagous to those that obtain in Bengal, where alone the jute plant is now cultivated with success. That gentleman this year laid before these subscribers his excellent report, and showed some bales of jute grown in Egypt. The gist of this report is to the effect that experiments have conclusively proved that the soil and climate of the deltaic districts of Egypt are admirably adapted to the cultivation of the jute plant, which he says has been grown there as a pot herb from time immemorial. That, notwithstanding incredible mistakes and neglect, and under the most adverse circumstances conceivable, jute of excellent quality has been produced. That abundance of suitable land is available for jute culture without at all encroaching on the domain of cotton, which at present is the most remunerative crop cultivated in the delta. That if the same care is bestowed as in the case of cotton crops, and experience brought to bear upon the business of jute cultivation in Egypt, a fiber of excellent quality can be produced at a price so as to be satisfactory to grower and consumer, on account of the rich alluvial soil of the country and the abundance of cheap labor.

The samples shown (about 12 bales) of jute grown in Egypt were admitted to be very good, being soft, yet tough and strong, of average length, and quite suitable for the Dundee trade. Dundee has felt of late years its exclusive dependence on Bengal for its almost entire supply of raw material, and has suffered from the gambling fluctuations in prices, which threatened droughts, or a combination among wealthy dealers in the interior of Bengal to hold back supplies, so frequently create. In order therefore to relieve the trade as far as possible of these drawbacks, the manufacturers here have formed an association (composed of the most influential and wealthy gentlemen engaged in the trade) to promote the business of jute growing in Egypt. This union is on a similar basis to that which was organized in Manchester on the occasion of the cotton famine. These gentlemen are taking a deep interest in this movement, as they recognize that it would be of immense value to Dundee to have a supply of jute much nearer to them than India, and to be able to be independent of the present precarious position of relying almost entirely on Bengal for their raw material.

This association, being provided with funds, has sent out to Egypt the same gentleman that represented the few subscribers who initiated this movement. He has got instructions to prosecute the cultivation of jute in Egypt with vigor. If he does so with the equal energy, intelligence, and perseverance that characterized his efforts while on his first journey, he will be able to furnish information which will be very reliable data to found upon. It shows sensible foresight on the part of these manufacturers to meet together, collect money, and arrange to test whether Egypt can be encouraged to go into this trade. There are, however, many difficulties to be overcome to gain this consummation; the national prejudices and ignorance of the natives make them jealous and distrustful about the introduction of anything new, especially if presented by Europeans. Judicious and enlightened instruction regarding the growing of jute, and proving to them that it will be a profitable industry to engage in, ought to go a great way in removing these suspicions. The Dundee manufacturers may not manage to establish this industry in Egypt, nevertheless they are to be commended for their earnest and practical efforts to accomplish this end by giving that country a fair trial.

A Dundee manufacturer, who has frequently passed through Ceylon en route to India, and who is well acquainted with the nature of the

climate and the soil of that island, has asserted that jute is a product suited for cultivation there, especially in the southwest side. There has, however, been no action taken upon this suggestion.

The report from the British legation in Washington, dealing with the cultivation of jute in the United States, was published in the leading Dundee newspapers, and was read with attention and interest by the jute manufacturers here. This report shows very clearly that the jute plant flourishes and grows in the alluvial soil of Louisiana to the height of 15 feet, and on the pine flats of the hills to 10 and 12 feet.

Now, it is well understood here that the jute plant can be profitably grown wherever in the Southern States there is a hot damp climate and moist soil of sandy clay or alluvial mold, and the jute manufacturers here watch with interest the action of the United States Department of Agriculture regarding this matter. They carefully take note of the inventions patented in the United States which claim to be able to manipulate the fiber for manufacturing purposes without going through the laborious and tedious hand process in operation in India. They quite believe that, if a machine can be got to clean and prepare the fiber for the market, the United States can provide cheap, yet good jute. If such a machine could be perfected, as no doubt it will be, judging from the description given of the invention for this purpose by Messrs. Dennis & Albert Angell, mentioned in the said report of the British legation, manufacturers of jute here may anticipate a curtailment of their business with the United States (which are at present their best customers), as the greatest obstacle to the profitable manufacture of jute there would be removed. Hence the deep interest manifested by manufacturers in the steps taken by the United States in this question of so vital importance to their trade.

Ramie has been spoken about as being a fiber suitable for manufacture in Dundee, but it has never been tried here as yet. It is thought the operatives here have not got the fineness of touch required for the spinning and manufacturing of this delicate fiber, and that linen-workers would be more likely to be capable of handling the article, being used to spin in finer numbers, and to weave a higher class of goods.

In a Times city article there appeared, a month or two ago, a letter relative to a threatened "jute corner," similar to the extraordinary "cotton corner" that has existed in Liverpool this year. This letter caused no excitement in Dundee, as the manufacturers knew the extent of their own stocks, besides being aware that they conducted their business on a different system from the cotton manufacturers. Many wealthy jute manufacturers here are large direct importers, having their own houses or agents in Calcutta, who purchase the jute there and ship it straight for Dundee, instead of being at the mercy of getting their raw material through intermediate outside agents, as is the case with cotton manufacturers. This attempted scare, therefore, had no influence in raising the price of jute, as it was regarded as certainly impossible that a set of speculators could obtain command of the entire supply. The cotton manufacturers might take a lesson from this, and try and devise some means to prevent their being made the tools for enriching a set of gamblers on the cotton exchange.

There was every prospect of a capital crop of jute this year, but it was ruined for want of water. The rivers in the jute districts of India have risen too late this season, and as a consequence the quality of the fiber is poor, being harsh and rank in nature. Spinners will therefore have trouble in manufacturing, and they will have to use more oil than usual n manipulating the fiber, the essential oil being greatly wanting in this

year's jute. The quantity is also said to be deficient, so that the general opinion is, taking everything into consideration, that there will be no cheap jute during the coming year.

Turning now to manufactured jute. During the past year there has been a fair demand for the coarser fabrics. But all along the production, just keeping a little ahead of the legitimate consumption, has enabled buyers to get goods at low prices all the time, and so to leave the trade not a very profitable or encouraging one to manufacturers. Indeed some failures have taken place this year amongst firms who did not have the advantage of being in the business some years ago, and more especially during the American civil war, when the trade was an exceedingly remunerative one. Consequently they have not been able to stand the strain of the bad times that have existed more or less during the past six years, with the exception of six months covering the end of 1879 and beginning of 1880, when the trade was fairly profitable. On account of the trade being in so unsatisfactory a condition, in April of this year a meeting of jute spinners and manufacturers was held to consider the desirableness of running short time to the extent of stopping the works on Saturdays (six hours) all day. A committee of the gentlemen present was formed to ascertain the feeling of all those engaged in the trade towards the proposition, and the meeting was adjourned for a week. Another meeting then took place, at which it was stated that it was found impossible to carry through a sufficiently united movement for the adoption of short time. The trade continuing lifeless, some months later the manufacturers again met, and it was proposed to lessen the production by closing the works on Saturdays. An agreement was drawn up for signature by those firms willing to abide by a resolution of this kind. But although a few signatures were got to the document the movement generally fell through, and the works have all been going full time, excepting two, which have had their hours shortened by eight per week. This of course makes no appreciable difference in the output of goods. It is considered that had the whole trade given their adherence to keeping their machinery silent on Saturdays that it would have had the effect of raising prices, because there has been a fair and healthy demand for jute goods, and the production has undoubtedly been only to a comparatively small extent beyond the consumption.

Purchasers have known this very well, and have taken advantage of their knowledge and the want of unanimity in the trade to get goods at the lowest rates possible.

The following table shows the wages paid to and the hours of labor worked by the operatives engaged in the jute manufacturing industry in Dundee, at September 30, 1881:

Operatives.	Per week.	
	Hours of labor.	Average wages.
Jute preparing department:		
Pickers of jute ..... men..	56	$4 15
Strickers up, piece work ..... women..	56	2 88
Hand at softeners ..... young men..	56	3 15
Preparers ..... women..	56	2 00
Boys, 14 to 15 years of age, jute workers ..... boys..	56	1 94
Foremen or overseers over all these workers ..... men..	56	6 25
Jute-spinning department:		
Coarse spinners of jute ..... women..	56	2 62
Fine spinners of jute ..... do....	56	2 15
Piecers, girls 14 to 15 years of age, jute workers ..... girls..	56	1 60
Shifters, girls 14 to 15 years of age, jute workers ..... do....	56	1 37

Operatives.	Per week.	
	Hours of labor.	Average wages.
Jute-spinning department—Continued.		
Half-timers, boys and girls 10 to 14 years of age, jute workers..girls and boys..	28	$0 60
Reelers, piece work.....women..	56	2 75
Bobbin-winders, piece work.....do....	56	3 62
Cop-winders, piece work.....do....	56	3 37
Warpers, piece work.....do....	56	3 75
Foremen or overseers over all these workers.....men..	56	6 25
Jute-weaving department:		
Single-loom weavers, piece work.....women..	56	2 50
Double-loom weavers, piece work.....do....	56	3 75
Tenters.....men..	56	6 25
Dressers.....do....	56	6 50
Foremen or overseers over all these workers.....do....	56	7 25
Finishing department:		
Croppers.....men..	56	4 50
Calenderers.....do....	56	5 00
Measurers.....do....	56	4 62
Lappers.....do....	56	5 00
Packers.....do....	56	5 00
Foremen or overseers over all these workers.....do....	56	7 50
Mechanical department:		
Mechanics (iron fitters and turners).....men..	56	6 50
Millwrights.....do....	56	6 50
Joiners.....do....	56	6 50
Other tradesmen employed in these works.....do....	56	6 50
Foremen or overseers over these tradesmen.....do....	56	7 50

Prices of jute goods have been low during the past year and have fluctuated very little. About the middle of October last year they firmed somewhat and rose about 4 per cent. A month afterwards they went back to the old figure and kept steady thereat till July of this year, when they rose about 5 per cent., but only stood so for a month, when they fell steadily until they now stand on the average of nearly the same low rates that prevailed last year, as will be seen from the following comparative table showing the prices of jute goods in Dundee as on September 30, 1880 and 1881:

Description.	Prices on—	
	September 30, 1881.	September 30, 1880.
JUTE YARNS.		
7 pounds jute yarn, first quality.....per spool..	s. d. to s. d. 1 7 to 1 8	s. d. to s. d. 1 7 to 1 8
7 pounds jute yarn, extra quality.....do....	1 10 to 1 11	1 9 to 1 10
8 to 9 pounds sacking chains, first quality.....per pound..	2⅜ to 2⅝	2⅜ to 2⅞
8 to 9 pounds Hessian chains, first quality.....do....	2⅜ to 2½	2⅜ to 2⅝
12 to 14 pounds yarn, first quality.....do....	2⅜ to 2⅝	2⅜ to 2⅝
24 pounds yarn, first quality.....do....	2 to 2⅛	2 to 2⅛
40 pounds yarn, first quality.....do....	1⅝ to 1¹³/₁₆	1⅝ to 1¹³/₁₆
JUTE FABRICS AND BAGS.		
40 inch 11 porter, 10½ oz. jute Hessian or burlaps.....per yard..	2¹/₁₆ to 1⅝ 2⅝	2⅛ to 2⅛
40 inch, 16 porter, 10½ oz. flax tow warp and jute weft, Hessian or burlaps.....per yard..	3½ to 3⅝	4 to 4⅛
45 nch 11 porter, 20 oz., tarpauling.....do....	4 to 4⅛	4 to 4⅛
27 inch , 8 porter, 1¼ pound, twilled jute sacking.....do....	3½ to 3⅝	3½ to 3⅝
29 inch, 8 porter, 1½ pounds, twilled jute sacking.....do....	3⅝ to 3¾	3½ to 3⅝
27 inch, 8 porter, 10½ twilled jute wool packs.....per package..	2 5 to 2 6¼	2 4 to 2 5
26 inch, 7 porter, 2⅛ twilled jute sacks, three bushel.....per sack..	7⅛ to 7¼	6⅝ to 6¾
44 inch, 7 porter, 18 oz., double warp bagging.....per yard..	3 to 3⅛	2⅞ to 3
44 inch, 7 porter, 24 oz., double warp bagging.....do....	3½ to 3⅝	3½ to 3⅝

There can be no doubt whatever that the enormous production of jute goods in Dundee has been the chief factor in keeping prices down

during the past year. As has already been stated there has been a fair consumption of all kinds of jute goods, more especially of the coarser qualities. Moreover, the keen competition experienced from Calcutta has not been anything like so severe as that of former years, Calcutta being well engaged principally with the native Indian demand—bags for the coast ports of India, and also for San Francisco, Cape of Good Hope, Australia, &c. This is proved by the following table, which shows that the exports from India of bags, &c., to the United Kingdom and the continent of Europe have been quite trifling compared with the same period in the two previous years.

Value of bags, &c., exported from Calcutta from January 1 to August 31.

Destination.	1879.		1880.		1881.	
	Number.	Value.	Number.	Value.	Number.	Value.
		Rupees.		*Rupees.*		*Rupees.*
Egypt	835,480	281,705	1,364,449	512,863	395,675	176,605
New York and Boston	1,883,900	292,623	1,277,000	224,861	874,900	172,506
United Kingdom	1,295,274	897,431	3,491,913	814,210	105,400	26,640
Continent (Europe)	198,410	56,082	432,600	113,812	16,950	4,465
Cape of Good Hope, South Africa, &c	899,468	281,715	575,100	215,747	1,104,312	403,547
Australia, New Zealand, &c.	4,331,504	1,504,045	3,827,358	1,278,399	3,045,888	1,580,982
San Francisco, Hong-Kong	12,919,468	1,773,898	13,660,225	1,877,569	17,757,324	2,302,751
Other ports in Burmah, Straits, coast ports, &c.	17,505,007	4,059,119	18,069,934	4,411,624	25,343,477	6,478,582
Total	42,868,511	9,236,613	42,698,579	9,450,085	48,643,906	11,147,028

The outlook for the jute trade in Dundee just now is certainly not a promising one; prices for the fabrics are drooping, and for the raw material keeping firm, with perhaps rather a tendency to rise. For a number of years the trade has not been prosperous. Rich manufacturing firms, having had every advantage which boundless capital gives, have purchased large parcels of jute, and so been able, perhaps, just to hold their own, by getting a small interest on their money. But, upon the whole, during the past six years the trade has been often profitless, and had times of deep and sharp depression

As has already been reported from this office, a most important element in bringing about such a state of matters has been the rise of the jute industry in India. Many of the new factories started there were originally in the hands of unskilled managers, who brought them to ruin by their incompetence in controlling the works, and selling goods at unremunerative prices. The crashes thus brought about have even told against the Dundee manufacturers, as the works were bought up at low prices, and so started with a small charge on capital, and are now in full operation, and therefore in a much better position than ever to compete strongly against Dundee. India has completely taken her own home market—a large one—and has practically won Australia, China, Egypt, and is fast gaining the ascendency in San Francisco. At one time Dundee had the sole monopoly of all these large outlets for its goods. Of course the loss of such important markets has been severely felt by a trade the development of which, being so rapid, prompted undue extension of premises and machinery, to give greater facility for increased production. Strange as it may seem, when jute manufacturing does not pay, it leads, in the first instance, to its extension. To turn out a few more tons per week appears to be the only course open when

prices are low. The expenses of running the establishment are much the same with increased production.

The jute trade has suffered also from the unfair competition of limited liability companies. Take, for example, the case of the Barrow Jute Company. During the past twelve years apparently this concern's affairs have not been managed in a way beneficial to its shareholders. Its last balance sheet shows liabilities of £551,116, and assets £142,160 short of its liabilities. In other words, it has, by its own showing, been selling its production during the past twelve years at a loss of £1,000 per month. But this is not all the truth; the plant is put down at £262,545, while practical men consider half the sum a high valuation. Thus it seems that an average of £2,000 per month have been lost during all these long years by this one company. It looks as if the managers of this company were not practical men, or, at least, that they had very little stake or interest in it beyond receiving their salaries or commissions when they allowed it to drift into so miserable a condition, and all the time seeing the shareholders' capital being swallowed up, while they were harassing by false competition others engaged in the trade. No private individual or firm would have so persistently continued to carry on business in such circumstances.

The Aberdeen Jute Company, limited—a small concern—issued their annual balance sheet in the spring of this year, and it showed a loss of £1,217 on the year's transactions, without allowing anything for depreciation of machinery, &c. The Baltic Jute Works, in Glasgow, conducted as a limited liability company, and which gave employment to a large number of persons, had to be closed about four years ago, being a most unprofitable speculation for the shareholders. These works are about to be opened by a Nottingham firm, who are to introduce lace manufacturing—a new industry for Glasgow.

On the 31st of December, of 1880, a letter was received at this office from Elwood, N. J., pointing out that Elwood was a place well adapted in many respects for establishing the jute manufacturing industry, and stating that special advantages would be given in the shape of a free grant of land for building upon, and relief from or modification of taxes, &c., to any practical jute manufacturer who would undertake to start the business there.

This letter had the best attention of this office, and some of the largest and most enterprising manufacturers here were personally interviewed on the subject, but none of them inclined to believe that the manufacturing of jute in Elwood would prove a successful venture. This was communicated along with the following summarized reasons given for arriving at this conclusion.

1st. The erecting of a suitable jute spinning mill and factory in Elwood would be very expensive.

2d. The machinery to fill these works being of a special kind, and not yet made in the United States, would, therefore, have to be got from this country; accordingly the duty payable upon its entrance into the United States would be, say, about 40 per cent. ad valorem, *i. e.*, 35 per cent. on machinery made of iron, and 45 per cent. on that made of steel, both of which articles are largely used in jute machinery.

3d. The duty on the raw material—jute—entering the United States is $15 per ton, or at least 20 per cent. ad valorem—a serious item.

4th. Labor would be very expensive compared with Dundee, and some kinds of it scarcely procurable at any price—spinners, for example, who must be trained up to this kind of work from young girlhood.

5th. The uncertainty of how long the present tariff on jute goods may

continue in force, viz, 30 per cent. on jute burlaps and 40 per cent. on bags made from this cloth. Even a modification of this tariff to the extent of 10 or 15 per cent. would it is considered be disastrous to United States jute manufacturers.

6th. If jute manufacturing in the United States is likely to be a paying business it is thought that it could be most profitably carried on in the large cities, such as New York, Philadelphia, Chicago, Baltimore, San Francisco, or in their immediate vicinity.

7th. The advantages offered in said letter would nothing like compensate for the drawbacks above mentioned.

These are a gist of the reasons given against this proposal by those gentlemen invited to give their views on the subject.

The Dundee Prices Current and Trade Report, which contains reliable quotations for jute and linen goods, and very full intelligence regarding the Dundee trade, and the Dundee Advertiser newspaper, with its weekly quotations and review of the jute trade, have both been sent regularly every week from this office during the past year to the United States appraiser, New York, in order to keep him well informed as to prices, &c. The United States appraiser at Boston has also been furnished with quotations for jute goods regularly every week during the same period.

The compiler of the above-mentioned Trade Report is a gentleman who has great experience and knowledge of the Dundee trade and its workings, being forty years connected with it. He states that the immense production of jute goods going on is the true cause of the unsatisfactory and unprofitable state of the trade. If there was a reasonable and legitimate output sufficient just to meet the fair consumption that was taking place he believed manufacturers would soon get fairly remunerative prices for their goods, and altogether the trade would be on a better footing. He thinks a curtailment of production will only be effected by the strongest and wealthiest firms continuing to run their works full time even on unsatisfactory terms until the weaker firms in the trade either collapse or give way in some manner. This seems to be the truth, judging from the fact that resolutions proposed to work short time have always fallen through frequently of late years for want of unanimity amongst the manufacturers to give adherence to them. There therefore appears to be no other method of lessening production—the acknowledged antidote for the jute trade in its present condition—than by the "weakest going to the wall." Meanwhile small firms who are buying their jute in little parcels and paying the current high prices must certainly be working at a loss. Of course this can only go on for a time, and unless the trade takes a turn for the better they will inevitably have to stop. It only remains to be stated that the prospects are as gloomy as they ever were as to a quick revival of business sufficient to carry off in a healthy way the quantity of jute goods now being manufactured in Dundee.

JOHN F. WINTER,
Consul.

UNITED STATES CONSULATE,
Dundee, Scotland.

COMMERCE AND INDUSTRIES OF HULL—1881.

REPORT BY COMMERCIAL AGENT HOWARD.

ANCIENT CHARACTER OF THE PORT.

The town and port of Kingston upon Hull has during the past seven hundred years occupied a very important position in the commercial transactions of Great Britain. Its first charter was granted to it April 1, 1299, and since that time it has steadily, though at times but slowly, progressed politically, socially, and commercially.

GEOGRAPHICAL POSITION.

The town of Hull is situated on the northern bank of the river Humber at a point where that estuary is joined by the little river Hull. The Humber is a stream 45 miles long and drains the largest area of any river of Great Britain; its water space covers nearly 250 miles. Where it passes Hull it is 2 miles broad, and is deep enough at the lowest spring tides to float any ship that sails upon the ocean, and in fact a large iron-clad about 6,000 tons register is always at anchor in the river.

The river Humber is under a pilotage commission, a conservancy commission, and a trinity board.

The duties of the first consist in maintaining a fleet of pilot vessels and a staff of pilots whose services must be used by all foreign-going vessels, but whose charges are very moderate and fixed. The Humber conservancy commission attends to the bed of the river, removing all obstructions that may occur; they cannot tax vessels. The duties of the trinity board consist in attending to the buoying and lighting of the river; their duties are performed in a most admirable manner, there being no river in the world better buoyed, or lighted than the Humber.

WATER COMMUNICATION.

The river Humber has two of the largest rivers in England flowing into it, and, as these and their tributaries are either by nature or art all rendered navigable streams, Hull has the best inland water communication of any port in England, and it is to this fact that its great prosperity is entirely owing. The facilities which it offers for interior communication may be gathered from the fact that during the year 1880 the Dock Company at the port received tolls from vessels trading coastwise, amounting to—

	Tons.
Sailing ships	505,686
Steam ships	183,848
Total	689,534

THE PRESENT DOCK ACCOMMODATION.

The dock accommodation consists of about 100 acres. The depth of water on the sills of the two principal docks is very great, and capable of admitting the largest class of ships; this will be understood when it is mentioned that the following American ships have visited Hull,

fully loaded: Shakespeare, 2,069 tons register; Lorretta Fish, 1,944; Commodore, 1,980; Columbus, 1,853; Wandering Jew, 1,737 tons register, besides many others of similar size.

The tides here are very strong and rise to a great height. A vessel of the size of those mentioned above, arriving at Hull at neap tides, would not be able to get immediately into dock, but would have to wait in the roads for a period which might extend to four days; but the general rule is that vessels can dock as soon as they arrive in the river.

INCREASING FACILITIES.

It has been thought, however, by the merchants, ship-owners, and traders generally at Hull, that even this brief waiting has its disadvantage, and during the past year of 1880 they have applied to Parliament for permission to make a new dock, and a company was incorporated called The Hull, Barnsley and West Riding Junction Railway and Dock Company, its object being to make a line of railway and a new dock.

Prior to the year 1854 the northeast of England was served by a number of small railway companies, but in that year these small lines were all incorporated into one system called the Northeastern Railway, and this was the company upon whose lines Hull was situated, no other company having access to the town. The Northeastern company's lines, however, are of such an admirable description that Hull has always had ready communication to all parts of England.

The people of Hull for many years thought that the Northeastern Company treated them very badly, and made several efforts to make a rival line, but without success until the past year (1880), when the company to which I have just alluded was formed. Its object is to bring Hull into more direct communication with the great Yorkshire coalfield, so that vessels may not as now have to go to other ports for coal cargoes. The company desired to construct a dock 46 acres in extent, having upon its sill the greatest depth of water of any dock in England. They applied to Parliament, and at a cost of £60,000, and despite the extraordinary exertions of the companies upon whose preserves the new company proposed to encroach, they gained the powers they wanted. The capital of the company, amounting to £3,000,000, was supplied in a few hours, and during the four days that the subscription was open no less than £7,250,000 was offered them. They have commenced the task of constructing their work and, are progressing in a very remarkable manner, having already succeeded in laying a temporary line of rail throughout their entire line, a distance of about 45 miles.

The liveliest interest is taken in this company, and the greatest expectations are indulged in as to its beneficial influence upon the future prosperity of the port.

HEALTH AND POPULATION.

Hull is generally considered a very healthy place; the drainage is good, and the sanitary authorities very vigilant. The death-rate is about 22 per 1,000 per annum, and the birth-rate 40 per 1,000. The corporation are now preparing an act of Parliament, the object of which is to further extend the borough so as to take in over 20,000 more inhabitants. There are about 150,000 people in Hull, showing an increase of 15,000 in ten years.

HULL THE THIRD PORT.

The value of imports into Hull during the past year were $96,783,681.60; exports, $89,145,624; total, $185,929,305.60.

Hull is the third port in the kingdom, as the following returns will show:

Imports into—	
London	$678,925,953 60
Liverpool	515,808,897 60
Hull	96,783,681 60
Glasgow	60,311,894 40
Folkestone	52,989,185 60
Rochester	45,511,761 60
Leith	45,480,240 60
Bristol	40,712,227 20

THE STATE OF TRADE.

During the past year the trade of Hull generally has shown much improvement when compared with its predecessor, and although the advance is not as large as could be wished, yet a very hopeful feeling pervades all classes of the community.

THE MANUFACTURES OF HULL.

OIL-SEED CRUSHING.

The manufactures of Hull are numerous and important. The principal industry is that of seed crushing. Oil seeds are imported here from South America, the Southern United States, Egypt, India, the Black Sea, the White Sea, and from the Baltic.

About twenty years ago the great firm of Keighley, Maxstead & Co., of Hull, imagined that they might be able to do something with the cotton seed that was lying waste in Egypt. Accordingly they imported a few tons from Alexandria, and it was then discovered that it would not only make excellent cake for cattle-feeding purposes, but would supply a valuable oil. So the import of cotton seed has gone on increasing *until the quantity now imported into Hull exceeds* 100,000 *tons per annum. The greater part of this comes from Egypt, but small portions of it from Fernandina and Beaufort. I think that it is worthy the consideration of the cotton-growers of the South whether they cannot send more of the seed to Hull, where there is an ample market.* The price of cotton seed in Hull at the close of 1880 was $38.10 per ton, a rate which should pay very handsomely the American cotton-grower. At one period in 1880 this seed was selling at Hull at $43.80 per ton. Some cargoes of oil cake also come to Hull from New Orleans, and small parcels from New York.

Linseed is also now being imported into Hull from the United States, but only in small quantities; all linseed that could be sent to Hull from the States would find a ready market here.

ARTIFICIAL MANURE.

Hull is situated in the very midst of fine agricultural districts, and the manufactures of artificial manure would find a ready sale, if only the harvests were better and the farmers had more money; as it is they

do very well. A year or two ago several cargoes of fish manure, about 600 tons each, were imported into Hull from the United States and found ready sale, and I see no reason why the same should not occur again.

Large quantities of guano and nitrate of soda are imported into Hull for agricultural purposes.

PAINT, COLOR, AND VARNISH MANUFACTURES.

The paint and varnish manufactures of Hull are numerous, and their works extensive. They send paint all over the world and also export a good deal of whiting.

There are also some extensive cement manufactures here, and cement is largely sent from Hull.

SHIP-BUILDING.

There is only one firm of any importance engaged in the iron ship building business, but its trade is very large and profitable; they are builders of iron-clads, as well as of merchant vessels, of the very largest tonnage.

The number of ships built at Hull during the past year was 3 sailing ships, 228 tons; 9 steamships, 5,555 tons; total, 12 ships, 5,783 tons.

COTTON-SPINNING.

Cotton-spinning, to a limited extent, is also carried on, and cotton is imported in large quantities, chiefly, however, for transshipment.

TIMBER TRADE.

The timber trade is one of Hull's most important branches of commerce, the imports at Hull being amongst the largest in the kingdom. In 1880, the imports at the five principal ports were:

Port.	Timber.	Deals.	Total.
	Loads.	*Loads.*	*Loads.*
London	222, 388	1, 236, 942	1, 459, 330
Liverpool	188, 029	522, 603	710, 632
Hull	76, 150	311, 820	387, 970
Hartlepool	178, 946	157, 683	336, 629
Grimsby	74, 871	189, 425	264, 296

From the United States ports Hull received the following:

Port.	Vessels.	Tonnage.	Loads.
Pensacola	15	10, 692	13, 865
Doboy	2	1, 394	2, 137
Total	17	12, 086	16, 002

ROSIN, PETROLEUM, AND PHOSPHATE ROCK.

There is a large import of these three commodities from the United

States, from which country, in fact, nearly the whole of the imports are received, viz:

PHOSPHATE ROCK.

Port.	Vessels.	Tonnage.	Quantity.
			Tons.
Coosam River	3	1,027	1,640
Charleston	3	1,074	1,646
	6	2,101	3,286

PETROLEUM.

			Barrels.
Philadelphia	1	333	1,879
New York	15	6,418	41,839
	16	6,751	43,718

ROSIN AND TURPENTINE.

Savannah	1	377	2,275
Wilmington	4	1,319	10,008
Charleston	4	1,034	12,924
	9	2,730	25,207

THE CORN TRADE.

The corn merchants of Hull are a numerous and generally a wealthy class. All kinds of grain are imported into Hull in enormous quantities. During the past year the following were the principal imports from—

	Cwt.
America, East Coast	1,720,168
America, West Coast	1,006,100
Egypt	660,468
Australia	265,064
Germany	191,364
Chili	191,220
New Zealand	66,592

The maize which arrived at Hull came principally from America, but some is imported from the Black Sea.

The warehousing accommodation at Hull for all kinds of grain is absolutely unrivaled.

SHIPS OWNED IN HULL.

The ships owned in Hull at the close of 1880 were 872, their tonnage, 189,414 tons, and were of the following sizes:

Capacity.	Sailing vessels.	Tons.	Steam vessels.	Tons.
Under 50 tons	154	5,445	41	879
Between 50 and 100 tons	475	33,411	8	663
Between 100 and 200 tons	12	1,690	4	470
Between 200 and 300 tons	5	1,238	9	2,258
Between 300 and 400 tons			8	2,895
Between 400 and 500 tons			13	5,869
Between 500 and 600 tons			13	7,082
Between 600 and 700 tons			17	11,200
Between 700 and 800 tons	1	733	12	9,147
Between 800 and 1,000 tons	1	831	39	34,354
Between 1,000 and 1,200 tons	1	1,104	22	23,927
Between 1,200 and 1,500 tons			22	29,575
Above 1,500 tons			8	14,330
	656	46,855	216	142,599

THE FISHING TRADE.

Hull is the second fishing port in the kingdom. The number of fishing vessels owned in it are: boats upwards of 15 tons register, 536 vessels, 33,842 tons; under 15 tons, 204 vessels, 790 tons; total, 740 vessels, 34,632 tons; other fishing vessels, 2, making a total of 742. Their crews number 2,519 persons.

THE CUSTOMS REVENUE.

The customs revenue for the past year was $574,093.64.

EXPORT OF COAL.

Hull is the eighth coal port of the kingdom, the report being 617,477 tons, the increase over the previous year being 153,107 tons.

EDWARD HOWARD,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Hull, England.

Statement showing the imports at Hull, England, for the year ending September 30, 1881.

Articles.	Quantity.	Value entered in United States gold.	Whence imported.
Animals:			
Oxen .....No..	9,690	$837,216	United States and Denmark.
Sheep.....No..	42,860	567,120	Germany.
Bones .....cwt	81,560	156,595	River Plate and Mediterranean.
Bark ..... do..	48,863	95,611	Belgium.
Bacon .....do..	415,382	3,987,667	United States.
Butter ....do..	141,860	3,486,267	United States, Holland, and Denmark.
Beans .....do..	753,885	1,623,580	Egypt and Turkey.
Barley.....do..	994,357	1,865,184	Do.
Cotton.....do..	78,348	1,014,403	United States and Egypt.
Copper ore .....do..	440,726	735,609	Spain.
Cotton seed.....do..	2,326,480	4,466,841	United States and Egypt.
Deals .....loads	324,307	4,047,235	United States, Canada, and Europe.
Flour .....cwt.	164,056	944,761	United States and Europe.
Flax.....do..	111,041	896,842	Russia.
Fish.....do..	224,042	1,998,483	Norway and Sweden.
Guano.....do..	75,820	168,091	Peru.
Hemp .....do..	296,089	1,816,794	United States and Russia.
Hides .....do..	125,274	1,267,846	Do.
Hops.....do..	11,489	275,736	France.
Iron .....do..	741,120	3,201,638	Sweden.
Lead .....do..	24,300	85,634	Spain.
Linseed .....qrs.	646,841	9,314,510	India and Russia.
Maize .....do..	1,072,786	1,142,894	United States, Turkey, and Russia.
Oranges.....bushels	253,772	457,238	Spain, Portugal, and the Azores.
Olive oil.....tuns	3,553	716,284	Italy.
Oats .....cwt.	577,407	830,116	Russia, Sweden, and Germany.
Oil seed cake .....do..	96,420	172,480	United States and France.
Pease .....do..	72,666	139,507	Canada and Germany.
Paper .....do..	188,659	1,141,046	France and Sweden.
Petroleum .....galls.	1,962,307	235,873	United States.
Potatoes .....cwts.	676,294	1,100,063	Germany.
Rags .....do..	307,302	1,368,284	Do.
Rapeseed.....qrs.	646,841	6,209,673	Turkey and Russia.
Sugar.....cwt.	214,873	1,146,495	United States and France.
Seed oil.....tuns.	3,758	437,299	France.
Tin .....cwt	263	5,678	Europe.
Tallow .....do..	73,909	567,875	United States and Russia.
Timber.....loads.	77,409	943,604	Germany and Sweden.
Wheat.....cwt.	4,666,792	12,320,352	United States, Australia, Canada, India, Chili, Egypt, and Russia.
Wool.....do..	114,766	435,686	Iceland.
Zinc.....do..	171,924	1,320,364	Europe.
Total	.....	73,574,474	

Statement showing the exports from Hull, England, for the year ending September 30, 1881.

Articles.	Quantity.	Value, including costs and charges.	Whither exported.
Alkali ..... cwt..	154,510	$297,128 00	United States, Germany, Russia, and France.
Arms and ammunition.	.....	55,531 20	Continent of Europe.
Bags .....doz..	798,208	909,748 80	United States and continent of Europe.
Beer and ale.....bbls..	1,686	129,500 80	Do.
Books.....cwt..	380	18,384 00	Continent of Europe.
Butter .....do...	36	844 80	Do.
Candles.....lbs..	12,696	1,920 00	Do.
Chemicals	.....	1,293,772 80	United States, Germany, Russia, and France.
Caoutchouc manufactures	.....	508,732 80	Principally Germany.
Coals.....tons..	605,690	1,377,960 00	Principally Europe; also, Egypt and United States.
Copper.....cwt..	37,243	660,672 00	Principally Russia, Germany, and France.
Cotton yarn.....lbs..	60,290,416	16,621,900 80	Principally Russia and Germany.
Cotton manufactures ..	.....	8,861,822 40	Principally Russia and Germany.
Earthenware	.....	316,430 40	Russia, Holland, and Germany.
Fish.....bbls..	20,936	126,729 40	Holland, Belgium, Germany, and France.
Glass	.....	124,473 60	Continent of Europe.
Haberdashery	.....	248,750 40	Do.
Hardware	.....	1,736,971 20	Do.
Hats .....doz..	26,385	134,393 20	Do.
Lead.....cwt..	2,200	11,160 00	Germany, Russia, and France.
Leather.....	.....	1,063,680 00	United States and the continent of Europe.
Linen yarn .....bbls..	2,732,000	806,217 60	Principally Russia and Germany.
Linen manufactures ...	.....	2,059,180 80	Do.
Machinery.....	.....	13,700,332 80	Continent of Europe.
Iron.....tons..	120,846	7,585,747 20	United States, Russia, and Germany.
Painters' colors	.....	391,900 80	United States, Russia, Germany, and France.
Paper.....cwt..	6,083	96,691 20	Russia, Norway, and Germany.
Seed oil.....galls..	5,896,500	2,999,740 80	Italy, Germany, and Russia.
Salt.....cwt..	6,083	14,707 20	Principally Russia and Germany.
Silk.....	.....	382,179 20	Do.
Spirits.....galls..	812	1,862 40	Norway.
Sugar.....cwt..	1,689	12,379 20	Principally Russia, Germany, and France.
Tin .....do...	322	6,974 40	Do.
Wearing apparel.....	.....	31,641 60	Continent of Europe.
Wool .....lbs..	3,259,960	1,289,731 20	Principally Russia and Germany.
Woolen yarn .....do...	14,769,600	6,531,220 80	Do.
Woolen manufactures. .	.....	6,378,926 40	Do.
Total.....	.....	76,789,940.20	

Statement showing the value of declared exports from Hull to the United States, during the four quarters of the year ending September 30, 1881.

Articles.	Quarters ending—				Total for the year.
	December 31.	March 31.	June 30.	September 30.	
Acid	.....	$851 76	.....	.....	$851 76
Ale	$18,445 30	16,173 14	$10,421 18	$12,757 16	57,796 78
Pickrone	2,507 54	.....	.....	.....	2,507 54
Carpet	.....	.....	157 84	876 58	1,304 42
Carpet wool	.....	.....	.....	1,526 02	1,526 02
Chemicals	.....	51 14	.....	.....	51 14
Cliff stone	915 80	1,907 94	1,241 54	848 42	4,913 70
Coals	4,901 62	4,845 44	1,225 14	5,643 12	16,615 32
Colors	14,194 26	14,741 76	19,801 72	22,546 58	71,284 32
Crude phenol acid	.....	.....	.....	450 34	450 34
Grease	1,541 34	.....	.....	.....	1,541 34
Hair	1,718 30	925 18	.....	6,815 76	9,459 24
Hemp	.....	4,831 26	1,263 34	7,430 56	13,525 16
Iron	1,586 50	5,466 74	2,818 84	2,003 42	11,875 52
Jet	.....	.....	.....	162 50	162 50
Leather	564 10	1,599 84	1,240 82	1,260 26	4,665 02
Manure	.....	.....	1,742 68	.....	1,742 68
New bags	110 78	.....	.....	.....	110 78
Oil	.....	591 48	.....	.....	591 48
Old iron rails	.....	3,486 20	.....	.....	3,486 20
Old rope	.....	.....	1,076 88	.....	1,076 88
Old scrap-iron	.....	.....	.....	1,308 92	1,308 92
Onions	.....	.....	.....	148 90	148 90
Paint	.....	.....	1,180 50	.....	1,180 50

Statement showing the value of declared exports from Hull to the United States, &c.—Cont'd.

Articles.	Quarters ending—				Total for the year.
	December 31.	March 31.	June 30.	September 30.	
Phosphate		$3,331 40		$7,346 44	$10,677 84
Potash	$1,013 92				1,013 92
Rags		1,198 66			1,198 66
Rope		1,193 74			1,198 74
Salts of tartar	1,451 34	8,110 32			9,561 66
Scrap-iron		1,228 94		1,570 84	2,799 28
Sheep sausage casings		482 50			482 50
Skins	5,058 36	6,949 38	$12,760 02	1,655 94	26,423 70
Steel	1,943 80	2,590 50			4,534 30
Stone	1,895 28				1,895 28
Twine	196 26				196 26
Washing blue				226 50	226 50
Whiting stone	741 70				741 70
Miscellaneous	184 90	1,610 36	1,607 12		3,402 68
Total in United States gold	58,971 10	82,267 68	56,536 92	74,577 78	272,353 48
Total for preceding year	352,787 84	95,725 82	67,840 76	30,892 81	547,247 23
Increase				43,684 97	
Decrease	*293,816 74	13,458 14	11,303 84		274,893 75

* This amount is greatly in excess, an error of $200,000 having been made by my predecessor in the compilation of the last annual report.

COMMERCE OF WALES, 1881.

REPORT BY CONSUL SYKES, OF CARDIFF.

There has been a decided increase in the exports of coal and iron from Cardiff during the past year. These are the principal exports from this port, and the majority of the inhabitants here depend almost entirely for a profitable result from their different businesses upon the state of the coal and iron market. The price of coal during the year has been from $2.16 to $2.50 per ton, and the trade continues brisk, and the price firm. In the iron and steel trade there is also a good deal of animation, the works continuing well employed, and orders to all appearances are numerous enough to insure a continuance of work for some time.

The imports into Cardiff are small, but a large field is open for this branch of trade, and a company here who are aware of this fact, and who have run a line of steamers to New York with a successful result for some few years back, are now increasing the number of their boats.

Inclosure C shows the number of United States vessels entered at this consular district during the year ending June 30, 1881, there being an increase of eleven over the year 1880.

Inclosure D shows the value of declared exports at this consular district for the four quarters ending September 30, 1881. This table shows an increase of $323,748.49 over the exports for the same period of 1880, and an increase of $1,541,228.99 over 1879, and $1,851,656.82 over 1878.

Inclosure E shows the imports from the United States to this port for the year 1880.

The subject which at present is engaging the attention of the inhabitants of Cardiff and Swansea is dock accommodation. The present docks at Cardiff are the property of the Marquis of Bute, and he has from time to time increased the accommodation to meet the requirements of the port, which are still growing, and further docks are now in contemplation, and will at no distant date be commenced. At Swansea

a new dock will be opened this month which will double the dock accommodation at that port, and ships of any size will be able to dock without fear of detention.

The consular agency at Newport had seven United States vessels, with an aggregate tonnage of 6,169 tons this year, compared with three vessels of 3,056 tons last year. Of the above seven vessels four arrived in ballast, the remaining three bringing cargoes of timber and iron ore, and taking away railway iron and coal. The exports from this agency have been considerably above the average, and consisted of rails, tin-plates, iron-rods for fencing, and coal. There were 86 steamers of a net tonnage of 98,717 tons, and 26 sailing-vessels of a net tonnage of 11,997 tons cleared from this agency to different ports in the United States. A line of steamers running between Newport and New York has also been established, so that the trade between the United States and that port will soon be thoroughly opened up.

At Swansea agency two United States vessels arrived during last year with an aggregate tonnage of 1,260 tons. The total number of vessels of all nations that cleared at Swansea during the year 1880 was 5,126, registering 885,362 tons. In no previous year has the average size of the vessels frequenting this port been so great, which is attributed to the liberal and spirited policy of the harbor trustees in readjusting and reducing the dues. The total of the import and export trade of the port amounted to 1,981,892 tons, which is an increase of 352,404 tons over the year 1879. The increase of imports has been principally in iron ore, pig iron, copper ore, and materials for building trades.

The export of coal has been larger than ever before. Patent fuel has also increased, the trade being nearly double what it was two years ago. There is also a substantial increase in the export of iron and steel. A line of steamers is also running from this port to New York.

At Llanelly agency, where there are numerous tin-plate, copper, and lead works, the trade has suffered severe depression during the past year, only two or three of the works being able to carry on, and that only half-time. The shipping has been unusually bad and freights low, and some of the collieries have suspended, and others have been exhausted.

Milford Haven agency is the first port or haven at the entrance to the Bristol Channel, and although I can report no imports or exports of any importance at this agency, it is believed that at no distant day Milford Haven will enter into serious competition with Liverpool, London, and Glasgow as a port of departure for British steamers to the United States.

Taking this district on the whole, it may be said that the trade in general shows a steady increase. The harvest has turned out better than was expected, and there is every prospect of a prosperous coming year.

W. WIRT SYKES,
Consul.

UNITED STATES CONSULATE,
Cardiff, Wales.

[Inclosure C.]

Statement showing the number of United States vessels entered at the consular district of Cardiff for the year ending June 30, 1881.

Entered.	Ships.	Barks.	Brigs.	Schooners.	Total.	Tonnage.
Cardiff	68	27	4	3	102	123,103
Newport	3	3	1	.....	7	6,169
Swansea	.....	1	.....	.....	1	637
Total for year 1881	71	31	5	3	110	129,909
Total for year 1880	50	29	3	8	99	114,469
Increase	12	2	2	.....	11	15,440
Decrease	.....	.....	.....	5	.....	.....

[Inclosure D.]

Statement showing the value of declared exports from the consular district of Cardiff to the United States during the four quarters of the year ending September 30, 1881.

Articles.	Quarter ending—				Total for the year.
	December 31, 1880.	March 31, 1881.	June 30, 1881.	September 30, 1881.	
Rails	$333,241 16	$97,721 54	$484,125 66	$127,983 88	$1,043,072 24
Blooms	24,254 42	25,068 52	18,907 64	64,992 00	133,182 68
Spiegeleisen	29,889 00	29,889 00	72,444 36	59,383 08	191,605 44
Steam coal	2,046 50	.....	11,074 20	25,547 76	38,668 46
Anthracite coal	2,092 79	.....	.....	.....	2,092 79
Bricks and cement	2,830 26	2,527 65	3,206 00	4,232 03	12,795,94
Books	60 75	.....	72 90	.....	133 65
Fish plates	883 16	39 64	3,563 28	3,583 62	8,019 70
Homo rods	44,201 15	43,861 54	46,783 19	26,430 26	161,276 14
Tin and terne plates	90,792 20	151,061 40	157,400 00	120,256 69	519,510 29
Sheep skins	4,193 83	2,857 68	.....	6,283 79	13,335 30
Pig iron	75 91	.....	.....	.....	75 91
Salt	.....	1,174 73	.....	683 33	1,858 06
Nails	.....	459 27	.....	.....	459 27
Rottenstone	.....	391 63	.....	560 58	952 21
Saltedroans	.....	.....	597 78	.....	597 78
Oxalic acid	.....	.....	1,226 53	.....	1,226 53
Cobalt	.....	.....	783 66	.....	783 66
Indigo	.....	.....	605 39	696 26	1,301 65
Wearing apparel	.....	.....	66 00	134 35	200 35
Iron spikes	.....	.....	6,374 78	.....	6,374 78
Old ropes	.....	.....	2,187 66	.....	2,187 66
Garden seed	.....	.....	19 44	.....	19 44
Old steel	.....	.....	.....	796 37	796 37
Galvanized sheets	.....	.....	.....	5,024 88	5,024 88
Oxide	.....	.....	.....	784 88	784 88
Nickle	.....	.....	.....	2,190 48	2,190 48
One bicycle	.....	.....	.....	34 02	34 02
Total in United States gold	534,511 23	355,072 60	809,438 47	449,538 26	2,148,560 56
Total for preceding year	280,121 20	413,168 29	782 552 33	348,970 25	1,824,812 07
Increase	254,390 03	.....	26,886 14	100,568 01	323,748 49
Decrease	.....	58,095 69	.....	.....	.....

[Inclosure E.]

Statement showing the imports at Cardiff from the United States for the year ended December 31, 1880.

Articles.	Quantities.	Value.
Oxen.....number..	1,421	
Sheep.....do....	381	
Provisions.....cwts..	130,637	
Wheat.....do....	487,064	
Barley.....do....	17	
Maize.....do....	209,662	
Wheaten flour.....do....	104,099	
Oat meal.....do....	857	
Barley meal.....do....	240	
Indian-corn meal.....do....	4	
Eggs.....great hundred..	116	
Farinaceous substances.....value..		$1,250 00
Oysters.....bushels..	53	
Fruit, raw.....value..		12,240 00
Fruit and vegetables, preserved and dried.....do....		2,440 00
Animal oil.....cwts..	100	
Oilseed cake.....tons..	1,999	
Linseed meal.....cwts..	700	
Clover seed.....do....	1,247	
Sugar:		
Molasses.....do....	7	
Glucose.....do....	4,108	
Tallow.....do....	6,078	
Firewood:		
Hewn.....loads..	5,084	
Sawn.....do....	4,070	
Goods manufactured.....value..		10,610 00

THE SOUTH WALES COAL TRADE, 1881.

REPORT BY CONSUL SYKES, OF CARDIFF

I have the honor to transmit a report of the coal trade of South Wales during the year 1881, which has been marked by features gratifying to those who have watched its course for the past few years. Although the history of this important local industry shows so rapid an increase in the coal trade as to justify the constant faith of capitalists in the comparative superiority of the South of Wales basin, yet there have not been wanting periods when these capitalists might have felt they overstepped the limits of prudence, and appraised too highly the value of Welsh steam coal. Even as recently as two and a half years ago it was evident that things had then reached a most unprofitable stage. It is true new collieries were being continually opened up, that capital was coming forward in an almost unstinted measure to increase the productive capacity, but prices had drooped to such a degree that each new mine added to the list only seemed to further darken prospects. The depression, however, which then existed here affected the whole country, and the improvement since realized appears to have been assisted in the case of South Wales by a recuperative power independent of the general amelioration.

The enormously rapid development of the coal production of the district has often been commented upon, and I here give a few statistics, beginning from 1876, the year of my arrival here, at which time the excitement caused by the mania of the few preceding years had begun to wear off, and the labor question had assumed a more settled phase.

The production of coal in South Wales, as compared with that of the entire United Kingdom, during the five years ending 1880, is as follows:

Years.	United Kingdom.	South Wales.
	Tons.	*Tons.*
1876	133, 344, 766	16, 473, 321
1877	134, 610, 763	16, 895, 120
1878	132, 607, 866	17, 416, 515
1879	134, 008, 228	17, 866, 737
1880	146, 818, 622	21, 354, 112

Thus it will be seen that whereas in 1876 the local production bore a proportion of 12½ per cent. to that of the United Kingdom, in 1880 that proportion had risen to 14½ per cent., and that while in the five years the general production had increased by little more than 10 per cent., that of South Wales had made the enormous bound of 30 per cent. The most noteworthy increase was between the years 1879 and 1880, and although I cannot yet add the statistics for the past year, there is good reason to believe that they will be no less significant.

With regard to exports, a most important branch of the question as regards South Wales, the annexed figures will be found of equal interest:

Years.	United Kingdom.	South Wales.
	Tons.	*Tons.*
1876	15, 690, 402	4, 800, 776
1877	14, 880, 899	5, 060, 312
1878	14, 998, 527	5, 571, 184
1879	15, 740, 082	5, 863, 667
1880	17, 891, 181	6, 805, 846
1881 (to November 30)	17, 999, 515	6, 857, 109

In 1876, it will be seen the coal exports from this channel were in the ratio of about 30 per cent. to those of the United Kingdom, while they have now risen to about 39 per cent.

The exports naturally occupy a position of very great prominence. The shipments coastwise from this channel and the inland trade are very important adjuncts to local commerce, but they are regular and steady, growing slowly and surely. Their movement has not shown anything like the astonishing progress attained in the export business. It is at the foreign depots where steamers have the choice between Welsh and other fuels that the preference for the former has been most conclusively established. This created a demand which led to the Welsh coal being able to command a more substantial advantage than ever over any other description.

During the latter part of last year there was some dullness in shipments, as compared with the previous activity, but this was mainly owing to low freights and the bad weather which retarded the movements of tonnage. The year 1881 closed, however, with a return to something like the old briskness and a general firmness in prices. Not only have large contracts been made for 1882, and remunerative prices, but sellers have been enabled in many cases to bring into successful operation the principle of the sliding scale, thus making the buyers participate in the

risks attaching to the wages question, which has given rise to so many deplorable disputes between masters and men in this district.

W. WIRT SIKES,
Consul.

UNITED STATES CONSULATE,
Cardiff, Wales, February 10, 1882.

TRADE AND NAVIGATION OF FALMOUTH.

REPORT OF CONSUL FOX.

In my last annual report I was enabled to report that some improvement had taken place in the financial condition and prospects of the mining industries of Cornwall, and owing to the further advance that has taken place in the value of tin, the chief article of mining produce, the tin mines of the country may now be described as being in a fairly prosperous condition.

The returns of the produce of the mines of Great Britain are not made up to September 30. I am, therefore, unable to supply the information derivable therefrom for the year ending on that day.

Tin ores.—The quantity of tin ores raised in Cornwall during the year 1880, was 13,705 tons, the value, $3,269,144; the average price per ton being $43.80 higher than that of 1879.

Copper ores.—The quantity of copper ores sold in Cornwall during the year ended June 30, 1881, amounted to 41,133 tons 21 cwts., which realized $696,321.07, but about 16,000 of such tons of this quantity were raised from mines in Devonshire, the adjoining county. The quantity of fine copper yielded by it was 2,744$\frac{17}{20}$ the average produce 6$\frac{8}{8}$, the average standard $454.28, and the average selling price of the ores $16.90 per ton of 21 cwt.

Compared with the previous year there was an increase of 608 tons of 21 cwt. in the quantity sold, and a decrease of 38$\frac{3}{20}$ tons in the quantity of fine copper yielded. This last-named result is of course due to a lower average standard price.

Following is a summary of the produce of other ores raised in Cornwall during the year ended December 31, 1880.

	Value.
Lead 753$\frac{18}{20}$ tons, yielding 570$\frac{1}{20}$ tons lead, and 11,790 silver ounces	$35, 130 40
Zinc, 4,439$\frac{14}{20}$ tons	63, 305 14
Pyrites:	
Mundic sulphur and arsenical ores, 6,368$\frac{18}{20}$	33, 411 66
Iron, 15,865.03, tons	47, 912 63

The produce of the China clay works of Cornwall during the same year was as follows: China clay, 278,572 tons, as against 273,862 tons in 1879; China stone, 34,870 tons, as against 38,142 tons in 1879; fire clay, 735 tons.

The value of these last-named products is not published. The prices depend very much on the quality which varies considerably.

THE PILCHARD FISHERY.

The quantity of cured pilchard exported during the season 1880–'81, (October 9 to March 2) was 11,843 hogsheads, as against 11,937$\frac{3}{4}$ hogsheads in the previous year. The quantity cured was 12,183 hogsheads, but 340 casks remain in Cornwall for future export.

The following extract from an annual circular on the pilchard fishery, published by Messrs. G. C. Fox & Co., of this town, supplies particulars

as to the prices realized for this article of food by the curers, and as to ports to which the respective shipments were exported:

FALMOUTH, *May* 13, 1881.

We subjoin a list of the shipments of pilchards last season, and a summary of exports in recent years.

The quantity taken by seines once more formed only a small portion of the catches, and their continued want of success for several years is considerably reducing the enterprise in that important part of the fishery industries of Cornwall.

It will be seen that the total of the shipments last season is 11,843 hogsheads. The quantity cured was 12,183 hogsheads but 340 hogsheads remain in Cornwall which are probably intended for shipment to Italy next season. The prices of cured were somewhat irregular. For the earliest catches 55 shillings was paid to the curers and for intermediate about 72 shillings. For later ones 80 shillings was paid, but at the close of the season purchases were effected at 70 shillings.

Vessels.	Hogsheads.	Loading port.	Date of sailing.	Genoa.	Leghorn.	Naples.	Bari.	Venice.
			1880.	*hhds.*	*hhds.*	*hhds.*	*hhds.*	*hhds.*
Europa	397	Penzance	Oct. 9.	397				
Minerva	1,044½	....do	Nov. 1.	969½	25	50		
Miranda	542½	....do	Nov. 9.	452½	40	50		
Sabrina	446	....do	Nov. 19.	427		19		
Cyprian	17	Liverpool	Nov. 20.	17				
Europa	1,229	Penzance	Dec. 6.	909	45	275		
Justitia	1,505	....do	Dec. 11.	953	52	500		
Lesbian	5	Liverpool	Dec. 17.	5				
Aurora	697	Penzance	Dec. 21.	563	51	83		
Princess	350	Penzance, via London.	Dec. 27.				350	
Minerva	417	Penzance	Dec. 29. 1881.	385		32		
Statira	1,379	....do	Jan. 6.	425	90	864		
Algerian	100	Penzance, via Liverpool.	Jan. 12					100
Algerian	54	Falmouth, via Liverpool.	Jan. 10.					54
Cyprian	46	....do	Jan. 17.					46
Camilla	1,125	Penzance	Jan. 21.	396	199	529½		
Italia	866	....do	Feb. 2.	619	25	222		
Ligurian	124	Falmouth, via Liverpool.	Feb. 10.					124
Justitia	1,114½	Penzance	Feb. 19.	704	207½	203		
Aurora	384	... do	Mch. 2.	355	9	20		
	11,843			7,577½	744	2,847½	350	324

TRADE WITH THE UNITED STATES.

From the following statement it will be seen that the declared value of the exports to the United States from this consular district during the year ending September 30, 1881, amounts to $76,517.79, as against $132,469.40 in 1880, showing a decrease of $55,951.61.

Statement showing the value of declared exports from the consular district of Falmouth to the United States during the four quarters of the year ending September 30, 1881.

Articles.	Quarter ending— December 31, 1880.	March 31, 1881.	June 30, 1881.	September 30, 1881.	Total for the year.
China clay	$20,697 14	$7,919 15	$7,583 28	$15,305 61	$51,505 18
China stone	.....	31 82	.....	.....	31 82
Arsenic	821 82	9,744 78	6,089 52	6,872 01	23,478 13
Bricks	446 25	.....	.....	1,056 41	1,502 66
Total in United States gold	21,965 21	17,695 75	13,622 80	23,234 03	76,517 79
Total for preceding year	15,696 89	20,135 57	84,964 39	11,672 55	132,469 40
Increase	6,268 32	.....	.....	11,564 48	.....
Decrease	.....	2,439 82	71,341 59	.....	55,951 61

I must again point out that I am unable to give any reliable returns of imports and exports for the *whole* of my consular district, other than those of goods shipped to the United States, and of pilchards exported to Italy. The reason of this is to be found in the fact that the information necessary to complete such returns can only be obtained from the customs authorities, who will not furnish it without payment. The following particulars, however (obtained from private sources), will show what cargoes have been imported into *this* part of my consulate from the United States.

Vessels.	Register tonnage.	Where from.	Cargo.	Where discharged.
Fido	527	New York	Wheat	Falmouth.
Pegli	626	Baltimore	do	Do.
Roma	521	New York	Maize	Truro.
Flora	676	Baltimore	Wheat	Falmouth.
Loochoo	494	New York	do	Truro.
Errante	503	do	do	Do.
Sirius	328	Baltimore	do	Do.
Sampo	766	Pensacola	Timber	Do.
Britannia	841	San Francisco	Wheat	Falmouth.
Onyx	403	Philadelphia	do	Do.
Andreas Rus	557	Baltimore	Maize	Truro.
Clelia Danovaro	609	New York	Wheat	Falmouth.
Bergenseren	528	Boston	Flour	Truro.
Rosa Chichizola	417	New York	Wheat and maize	Do.
N. S. del Boschetto	571	Baltimore	Wheat	Do.
Mitford	334	Pascagoula	Timber	Falmouth.
Thom	422	do	do	Truro.
Ornen	544	New York	Maize	Do.
Sir Humphrey Davy	294	do	Wheat and oil cake	Do.
Biagino	467	Baltimore	Wheat	Falmouth.
Total	10,428			

It will thus be seen that these imports are confined to wheat, maize, timber, flour, and oil cake. There is a falling off of 1,291 tons in the aggregate register tonnage of the vessels bringing cargoes from the United States as compared with the year ending September 30, 1880.

Not one of the above vessels belonged to the United States. The articles imported from other countries into this part of my consular district have been as follows, viz:

From France.—Barley, oats, potatoes, oysters, sugar, bones, coprolite ore, and plaster of Paris.

From Belgium.— Phosphate of lime and bark.

From Holland.—Gin, sugar, tin, and tin ore.

From Portugal.—Wine, oranges, phosphate of lime.

From Italy.—Bones.

From Spain.—Cattle, bones, ores, eggs, and onions, but the chief import is that of cattle—no less than fifty-six cargoes having been landed during the year.

Norway and Baltic ports.—Timber, sawn and unsawn.

Germany.—Potatoes.

European Turkey.—Barley.

Brazil.—Bones and bone ash.

Prince Edward Island.—Oats.

Navassa.—Phosphate of lime.

NAVIGATION.

The following tabular statement gives a summary of the vessels that

arrived at Falmouth during the year 1880 for orders and otherwise, not including coasters and men-of-war:

Nationality.	No. of vessels.	Register Tonnage.	Nationality.	No. of vessels.	Register tonnage.
English	1,058	582,891	Spanish	36	12,152
German	347	143,714	Austrian	34	15,534
Norway	240	91,408	Russian	20	11,421
Italian	215	118,895	Belgian	10	9,468
Danish	106	27,703	Portuguese	3	1,113
American	49	53,619	Nicáraguan	1	275
French	87	41,013	Brazilian	1	141
Swedish	78	28,517	Hawaiian	1	360
Dutch	65	23,884			
Greek	37	15,921	18 different flags	2,388	1,178,519

In 1879 the number of such vessels was 2,375, whose aggregate tonnage was 1,188,477, showing an increase in 1880 of 13 in the number of vessels and a decrease of 14,958 in the aggregate tonnage. The number of American vessels which arrived in this port in 1879 was 53, having an aggregate tonnage of 52,320, as against 49 vessels whose aggregate tonnage was 53,619 in 1880.

HOWARD FOX,
Consul.

UNITED STATES CONSULATE,
Falmouth, England, 1881.

THE NORTH SEA CANAL.

REPORT BY CONSUL ECKSTEIN, OF AMSTERDAM.

The following statements respecting the North Sea Canal have been kindly furnished by the Amsterdam Canal Company, and are given verbatim:

The last reports on these works were published in 1868, and in October, 1879, and we are happy to say that since that time the new canal and harbor-works have answered all requirements.

During the late severe winter the harbor of Ymuiden remained free from ice.

On the canal proper, however, the passage for wooden ships was interrupted for a few days, but as a company has been formed lately with the object of keeping the canal opened in case of frost, by a channel 14 meters (about 46 feet) wide, with at least four cut-outs or changing stations, to allow ships to pass one another, it is very probable this difficulty will soon be overcome.

The harbor of Ymuiden has been marked since 1879 by two fixed lights of the first order. They are both dioptric white lights, covering a range of the horizon from NE. by N., through W. to SW. by S. (magnetic.) They are exhibited from round iron towers, erected 560 meters (1,988 feet) apart, at the south side of the canal, SE. by E. ½ E., and NW. by W. ½ W., and are magnetic, inasmuch that the lights in one lead along the mid-channel from the middle of the harbor entrance between the piers to the middle, situated inside the moles at the foot of the sand-hills.

The foregoing two lights have been erected at the ends of the piers,

and are so constructed that they may remain alight during a very long time, say, twenty days, without requiring cleaning or renewal of oil, it not being always possible in rough weather to reach them. At present there is now no danger in entering the harbor by night.

It should further be stated that a concession has been applied for to establish a railway connecting Ymuiden with Amsterdam.

In 1879 the board of the Amsterdam Canal Company entered into negotiations with the government to hand over to government the canal works and its dependencies, now forming part of the canal company's property, inclusive of all assets and liabilities. The board was induced to effect this transaction on the following grounds:

1st. From the nature of these works that they ought to come under government control; and

2d. The uncertainty existing as to the canal revenues sufficing to meet the expenses of working and maintaining the undertaking.

After long negotiations as to the conditions and amounts to be appropriated as indemnity to shareholders, an agreement was reached showing the following features, viz:

1st. The government agrees to pay to the shareholders the whole of the canal and harbor dues, till they shall have attained the sum of 6,139,898.72 florins; this amount being the balance still due by the government, according to the terms of the original concession, on its guarantee for the due payment of the dividend on shares up to 1917. The government guarantees the above-mentioned revenues to an amount not exceeding 200,000 florins annually, and will complete this figure should a deficiency arise in any one year.

2d. Should the government at any future time abolish said "dues" the shareholders are either to receive the sum of 200,000 florins annually, until the above amount of 6,139,898.72 florins has been reached, or the actual value of the returns of 200,000 florins calculated at 4 per cent. compound interest.

This agreement is yet to be ratified by the legislative powers, and will probably be speedily taken up by the "Chambers." The following statement shows the monthly traffic on the "canal" since the last report, up to January 1, 1881:

Months.	Number of vessels.			Tonnage.
	Inward.	Outward.	Total.	
September, 1879	152	161	313	149,945
October, 1879	156	137	293	140,807
November, 1879	143	139	282	132,826
December, 1879	73	45	118	68,269
January, 1880	68	86	154	82,489
February, 1880	101	66	167	84,133
March, 1880	82	136	218	104,940
April, 1880	117	131	248	116,237
May, 1880	110	135	245	124,529
June, 1880	167	150	317	147,732
July, 1880	151	155	306	134,066
August, 1880	191	175	366	160,336
September, 1880	148	131	279	126,280
October, 1880	187	155	342	163,430
November, 1880	178	119	297	153,526
December, 1880	107	119	226	116,458
Total	2,231	2,040	4,171	2,015,194

The fishermen are not included in these figures.

With regard to nationality, the said number of vessels was divided as follows:

Dutch	1,507	Danish	36
British	1,501	American	23
Norwegian	663	French	20
German	194	Austrian	16
Russian	74	Spanish	12
Swedish	65	Belgian	2
Italian	57	Greek	1

Of the above vessels there were—

Drawing nearly 10 feet	562
Drawing from 10 to 13 feet	1,756
Drawing from 13 to 16½ feet	1,208
Drawing from 16½ to 19½ feet	519
Drawing 20 feet or upward	126
Total	4,171

AMSTERDAM'S WATER COMMUNICATION WITH THE RHINE.

The inhabitants of this city generally have long recognized the fact that if this city is ever to resume its former proud position as a great commercial center, or to successfully compete, as a seaport, with Hamburg and Antwerp, it can only be brought about by providing a shorter and better water-way to the Rhine than exists at present.

The principal communication, by water, of Amsterdam with the Rhine consists now of the canal known as the "Keulsche Vaart," or "Old Cologne Water-way," its direction being from Amsterdam along Weesp, Vreeswyk, Vianen, and Gorinchem to the Herwede. This canal is defective, and utterly insufficient for the purposes requisite to a waterway from this city to the Rhine.

As described to me by one of the ablest engineers of this country, its principal drawback is its great extent, being about 50 kilometers longer than the nearer way, along which an entirely new canal could easily be constructed.

In addition to this it is curved, narrow, and shallow; and not practicable for vessels drawing more than 2 meters.

There is still another water-way from this city to the Rhine, which runs from Amsterdam toward Gouda and falls into the river Yssel in the neighborhood of Rotterdam. This latter is also said to be impracticable for vessels of even moderate cargo capacity, from its shallowness and from its numerous windings and small sluices. The distance, by both of these canals, from Amsterdam to the Rhine, is considerably greater than from Rotterdam.

The subject of either improving the "Keulsche Vaart" or "Old Cologne Water-way" or of constructing an entirely new canal has been for years under consideration by the government, and every possible effort has been made by the city of Amsterdam to convince the government and the members of both chambers of the Staten Generaal of the necessity of deciding in favor of building the new canal.

The decision, however, recently rendered, caused the utter discomfiture and disappointment of the people of Amsterdam, for the Staten Generaal (the second chamber, wherein the bill originated) resolved in favor of improving the canal known as the "Keulsche Vaart," above referred to, by a vote of 40 against 33; and the first chamber, afterward, by a vote of 21 against 17.

The lowest estimate for the improvements of the old canal is 12,000,000 florins, and the works are shortly to be commenced.

By the people of Amsterdam the action of the ministry as well as of the Staten Generaal is held to be extremely unwise. It is claimed by them that the improvement of the existing canal will still leave Amsterdam without such communication with the Rhine as is needed, as its great length and its numerous locks cannot be done away with.

The people adhere to the belief, grounded upon reports of some of the ablest engineers of the country, that an entirely new canal, much shorter, with fewer locks, and better in all respects might be constructed, at an expense but little in excess of the cost of the improvement of the existing canal, had the goverenment seen proper to bestow its approval. In consequence of this much dissatisfaction exists here, for it is generally believed that the government and the Staten Generaal have not accorded to the commercial interests of the city of Amsterdam the consideration in this matter due to such an important matter; but as the decision is absolute, comment or criticism on the reasons which brought about said decision would be both superfluous and out of place.

DAVID ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, Holland, 1881.

COMMERCE AND TRADE AT LEGHORN.

REPORT BY CONSUL RICE.

In making a comparative review of the commercial relations between this port and the United States for the year ending December 31, 1881, I regret to have to mention a heavy decrease in comparison with the statistics of 1880, such decrease being equally marked in exports as in imports.

Although the past year has been by no means a bad one, still circumstances have occurred which have led to a reduction in our trade.

During the earlier part of 1881 there was quite a lull in the export trade, owing to the anticipated change in the financial policy of this kingdom. The somewhat abrupt announcement by the Italian minister of finance of the intention to contract a loan of about $130,000,000 to be devoted to the extinction of the forced paper was recorded in my report for the year 1880. This loan has since been floated successfully and principally taken up in Great Britain, although at that time a rapid and generally maintained fall took place in the value of gold, the fall being from 28.03 lire on the 29th of September, 1880, to 25.42 lire on the 25th of February, 1881.

In June, 1881, however, commercial confidence having shown itself in the result of the financial operation in question, trade revived and has promised fair for the remainder of the year, and still continues to look well for 1882. Another cause of the "lull" referred to, I am led to suppose, originated in the fact that exporters having benefited by the large orders sent them during 1880, considerably overstocked the market, and that the year 1881, cramped by this temporary drawback, has had to suffer for it by a temporarily slack season, till such times as stocks had been worked off in the United States, besides which considerable quantities of the staple exports hence were left on hand here at the end of 1880.

Notwithstanding this, and although the general statistics show a

large falling off in certain articles, and a decidedly heavy aggregate to our debit, still I am happy to report that in the usual articles of merchandise exported from Leghorn a distinct gradual increase appears, and, in point of fact, after excluding a few headings, the remainder of the commercial transactions of 1881 have been completed on a much more secure basis than have those of 1880, the business done having partaken more of a regular commercial character than of hazardous speculation, as appears to have been the case in 1880. In the matter of exports from Leghorn to the United States during the past twelve months the schedule shows a falling off in value of $523,727.29, as compared with the total exports of 1880; this large amount is, however, entirely covered by two items alone, viz, boracic acid and rags. The fall in the former is owing to the large quantity exported during 1880, and more especially to the discovery and production of the same article in America. The deficit in the exportation of rags is explained by the fact that instead of being collected for shipment here, as in the past, a great quantity has been exported direct from the places where they are produced. The heavy fall which took place in 1880 in the price caused the merchants here to occupy themselves with other articles of commerce.

I may also mention that the falling off in rags as an article of export has had an indirect effect upon the shipment of marble. The Anchor Line of steamers, which, during 1881, has dispatched twenty-six steamers to New York and thirteen to Boston (carrying nearly all the fine goods), have taken also a fair proportion of rags to stow the marble blocks they carry; consequently, sailing vessels have been obliged to carry marble, pumice stone, and the residue of rags, &c., and I understand difficulty has been found in loading sailing vessels, owing to the scarcity of rags for blocking marble, the use of wood for such purpose being practically too expensive at the low marble-freight rates which have ruled, the consequence being that the charterer in fixing his marble had also to provide rags, which, being a losing article of export, entailed a corresponding loss on the marble export, and somewhat restricted business, producing, on the other hand, a momentary starvation in the marble markets at New York, Boston, and elsewhere.

In the return embracing the imports from the United States to this port, there is to be found a decrease as compared with 1880, amounting to $619,956.40, in which falling off tobacco alone figures for the weight of 4,557,055 pounds, valued at $218,627.65; cotton-seed oil at 385,277 gallons, valued at $174,730, and alcohol at 291,852 gallons, value $106,023.25, whilst on the other hand petroleum shows an increase of 618,208 gallons, valued at $153,471, and rosin of 101,600 pounds, value $900.

These fallings off and increases are to be accounted for as follows: The tobacco monopoly have factories at Lucca, Florence, &c., which have till recently been fed with American tobacco through Leghorn; this owing to the geographical position of the places named. The railway system, however, of northern Italy, denominated the "Alta Italia" railways, in order to benefit Genoa, have been competing with Leghorn since the completion of the Genoa, Spezia, and Pisa line, and actually conveying merchandise from Genoa to Florence, a distance of 267 kilometers, at a lower rate than the Roman railways could carry the goods from Leghorn to Florence, a distance of only 97 kilometers. This war of tariff will now, however, end, as the Roman lines from January 1, 1882, have become the property of the government, and the tariffs are being assimilated. Besides this, the tobacco monopoly has constructed considerable warehouses here for the deposits of tobacco, presumably

for use; these are now open, and the annual report for 1882 should announce a revival in this branch of imports.

The falling off of imports of grain (principally Indian corn) is accounted for at once by the fact of the importations from the Black Sea (which had fallen off in 1880) having regained their usual importance; this also explains the deficit in the alcoholic importations, the spirit being now made here from Russian grain.

In my last report I mentioned that the infliction of a very heavy import tax, in addition to that formerly exacted, on cotton-seed oil, and this to prevent the adulteration of olive oil, would have for effect to greatly reduce importations under this head, and my prognostication has been fully borne out by facts; and it is not only the importation of cotton-seed oil from the United States that has been affected, for that also from Great Britain (which was much more important) has suffered in the same ratio. I consider that there is little prospect of this article regaining its old importance in our schedule for some time to come.

Petroleum shows a gradual but firm increase, the large lot on hand having been nearly all consumed, and the prices for the finer grades rule higher.

I am happy to report that the export of wine has been steadily increasing, and a decided improvement is visible in this item over other years. Messrs. Cella Bros., of New York, seem to be the principal receivers in the United States. The article shows an increase over 1880 of $3,396.62. I would remark that this wine, which is cheap here, is still almost a luxury in America, but as the possibility of carrying the wine across the Atlantic so as to arrive in a thoroughly sound state becomes each year more clearly demonstrated by experience, and this, without too much doctoring or adulteration, but usually through the adaptation of French systems of dressing by the growers, there is no reason why the commerce hence in this article may not assume very considerable proportions, the more so as the increasing frequency of steam communication and competition between English, French, and Italian lines of steamers must have the effect of reducing existing rates of freights.

The exports of olive oil show a very fair average, but since the imposition of an additional import tax by the Italian Government upon cotton-seed oil, this article has not been exported in quite such large quantities; what it has lost in quantity it has, however, gained in quality; it is far purer, and the best qualities are eagerly sought for, and high prices paid for them. Those houses known to deal only in perfectly pure, unadulterated olive oil, do not complain of lack of orders during 1882; the shipments may not, however, be very large, as the crop for 1881–'82 has not been abundant.

The exports in alabasters have much increased of late; figures, vases, &c., being in considerable demand, though the supply is much greater than the quantity sold; in fact, this year, at Volterra, where all the alabaster quaries are situated, the sculptors and artisans have been willing to sell their goods for almost any price—poverty actually staring them in the face.

The candied citron season has just terminated, and has been one of considerable activity, but the prices realized in the United States have not resulted in a successful season to the exporters, and there have been considerable failures in this branch of export trade.

Soap of various qualities has been freely shipped, both on orders and private account; the Leghorn marks appear to command a steady de-
d and fairly remunerative prices, especially for the better qualities.
e number of invoices authenticated during the past year was 725, a

falling off of 35 on the preceding year. The aggregate of fees received amounting to $2,745.60, which give a deficit of $287.94 as compared with 1880. Notwithstanding this, the movement of tonnage between this port and the United States shows a considerable increase in our favor; no less than 97 steamers and 25 sailing vessels having cleared for home parts, and 7 steamers and 16 sailing vessels having arrived therefrom—but of all these not one carried the flag of our country.

As far as our national commerce is concerned, this port is dead to our merchant marine. With all the shipments from this to the United States, to which may be be added in bulk and value as much more as exports coming into this consular jurisdiction from Carrara, Florence, and Rome (which are not of course taken into consideration in the returns of this consulate), the whole is absorbed by ships of foreign nationalities. Not one American merchant vessel has shown her flag in Leghorn Harbor during 1881, and only twenty years ago all the carrying trade between this and other Italian ports, as well as those of the United States, was performed by our clippers. The books of this office registered as many as forty or fifty ships yearly carrying the American ensign.

Commerce is promising well here for the year 1882, as may be gathered from the fact that steamers and sailing-ship freight rates are holding up, and a favorable year may be anticipated.

I understand that considerable orders for "French beans," a new article of export, have been received, and over one hundred tons have been already shipped. The use to be made of this new article has not transpired, but it is surmised that it is intended for the consumption of Italian emigrants.

MISCELLANEOUS.

Emigration hence has hitherto had little or no importance, but it is rumored that with the opening of a line hence to New Orleans under the British flag some inhabitants of the Lucca district will take this route.

The jute manufacture steadily makes its way, and the manufactory at Lucca is being enlarged considerably with the intention of giving employment to nearly 3,000 hands.

The jute carpets produced are of fair quality, considering that the cost runs from 30 cents to 50 cents per meter.

In the autumn of 1881 a royal naval school was opened here to take the place of the abolished schools of Genoa and Naples. The premises are commodious, and the pupils are numerous. I shall take an opportunity during the year, when the school shall have got well settled down to work, to visit it and specially report on the subject.

With reference to the improvement of the Leghorn Harbor, contracts have now been let by public competition to Italian contractors (to the exclusion of foreigners) for the lengthening of the existing dry-dock, in order to be able to accommodate the largest ships running at present in the Mediterranean, and to deepen the inner harbor, "Porto Mediceo," to 7 meters, say 22 feet 10 inches, and outer or new harbor to 10 meters, say 32 feet. I will fully describe these works when they shall have been commenced.

A contract for the construction of a breakwater to protect the shipping in the outer harbor from the southwesterly gales (Libeccio) has still to be let.

Messrs. Orlando Bros., who have an important iron and steel ship and engine building establishment here, are making important additions to their premises. They launch this month the steamer Birmania, a steamer

of 3,000 tons, and in March or April the ponderous iron-clad Lepanto, an improvement on that marine monster the Duilio, of which so much has been said and written. I must say, however, that though the Lepanto may be launched this spring, it will probably be a long time, perhaps years, before she can be ready for sea. The place of these two vessels is to be taken by two swift-running corvettes for the Italian Government, and two or three large steamers for the Genoa Buenos-Ayres-Italian mail service.

Contracts are also talked of, for execution here, for the construction of two or three large steamers for the Rubattino Florio Company, for the Indian and American services. All this represents work taken from the building yards of Great Britain, and demonstrates clearly that a spirit of enterprise is fast making itself known in Italy, which was not to be found twenty years ago, when the petty states, then comprised in the purely geographical expression Italy, were dependent on foreign countries for vessels and machinery of every description, whereas now steamers in iron and steel, all built and engined, locomotives constructed, railways laid out, tunnels bored, &c., are all executed by native intelligence alone; and frankly the result compares well with the best that comes from abroad, the only thing that appears to be lacking is capital, but the spirit of association is fast developing itself also, and in Leghorn it is observable that whereas ten years ago all moneyed men dabbled in bourse speculations, they are now, timidly at first, engaging their capital in legitimate industries, such as plate-glass making, spirits distillation, ship-building, agricultural instrument buildings, soap-making, and, I may also mention, remarkable instances of novelties, viz, the preparation of rough briar-wood pipes, of which nearly two hundred tons weight was exported to America alone last year; also artificial ivory buttons.

In the consular district of Leghorn the production of cotton stuffs is rapidly increasing, and at Lucca there is now a factory producing excellent sewing cotton and thread, whilst at Navacchio a biscuit manufactory produces fancy biscuits rivalling the English produce. I mention these few facts, not that they have any very great commercial importance, but because they are most eloquent signs of the times.

WILLIAM T. RICE,
Consul.

UNITED STATES CONSULATE,
Leghorn, Italy, January 30, 1882.

GRAIN TRADE IN THE NETHERLANDS, 1881.

REPORT BY CONSUL ECKSTEIN OF AMSTERDAM.

The prospects of a good grain crop in Holland were, up to harvest time, quite satisfactory, with the exception of some few districts which had suffered from inundations, and the cutting of grain had actually commenced in some places, when, in consequence of heavy and long-continued rainfalls, a considerable proportion of the entire crop was either injured or destroyed.

The western and eastern provinces suffered the most, as but little was gathered in when the wet weather set in.

Still the grain trade in the markets of this country, during the year 1881, did not attain the importance nor result as favorably to those ·ein engaged as they believed themselves justified to expect at the

beginning of the year. Various circumstances combined produced this effect.

In consequence of the rye crop being extremely poor in Europe for the last two years, and the stock on hand being everywhere exceedingly low, prices ruled very high during the whole year, and a considerable decrease in its consumption resulted. Other articles of food were used, more especially potatoes, of which in 1881 this country raised an abundant crop.

By the figures in the subjoined tabular statements it will be seen that the rye imports in 1881 did not amount to one half what they did in 1879, and that they greatly declined as compared with 1880. As to wheat, it is generally acknowledged here that this country is still, to a great extent, dependent upon the United States for its supplies. This fact is but little relished in some quarters on account of the alleged pervading speculative spirit on the part of certain parties in the United States seeking to control the export trade of the article.

It is said that the operations in wheat from the United States in 1881 might have been much larger if importers and dealers here had not been obliged to be constantly on their guard against sudden surprises brought about at any moment by excessive speculations in the article in the United States. It is under those circumstances that certain parties interested in the trade hail with unfeigned satisfaction the fact that the wheat imports and trade from British India are increasing.

Calcutta wheat formerly found little favor here, as its treatment was not understood, but now some of the millers here are said to make their mélange with 50 per cent. Calcutta wheat.

In my last year's report I directed attention to the growing importance of the imports and trade in Indian corn, and there has been again a regular and fair trade in the article in 1881. Its principal consumption is still confined to food for animals; for distillery purposes its use is increasing, and it is growing in favor for cooking and baking purposes.

It may not be uninteresting to mention that linseed has been for the first time imported here from the United States during the past year. Comparatively only a small quantity was brought here, but as to quality it is said to have proved satisfactory.

There is a large number of oil-mills in this country, nearly all of them situated on the river Zaan in this province—North Holland—and the trade in this market and at Rotterdam in that product is of considerable importance. Under favorable conditions of yield of crops in the United States the linseed exports to this country might be greatly extended.

Barley.—The imports of this grain, none of which comes from the United States, amounted in 1881 to 42,290 lasts* at Rotterdam and to 4,810 lasts at Amsterdam.

Peas.—The imports of this article at Rotterdam amounted in 1881 to about 1,850 lasts, principally from the United States.

Flour.—The imports of American wheat flour into this country in 1880, reached about 15,000,000 kilograms, and amounted during the first half of the year 1881 to fully as much as for the corresponding six months of the previous year.

Minnesota flour has become generally appreciated, on account of its excellent baking qualities, by consumers here, and is much in demand. The trade in this article, as well as in other brands of American flour

* The last is equal to 85.14 bushels.

would doubtless have largely increased if the poor result of the wheat crop in some of the "States" had not during the second half of the year diverted the trade into other channels. It would appear that there is an increased home demand for Minnesota flour; at any rate the prices at which it was quoted since July last have caused a marked decline in its importation into Holland, and only the lower grades at more moderate prices could find a market here. There has not been so much cause for complaint, in 1881, on account of delays in the transportation of the article from the west to the seaboard, and nearly all shipments were regularly and promptly received.

The following statements show the imports of rye, wheat, and maize at Amsterdam and Rotterdam from the year 1872 to 1881, both inclusive, in lasts:

AMSTERDAM.

Year.	Rye.	Wheat.	Maize.
In 1872	13,050	7,750	.....
In 1873	9,050	9,600	.....
In 1874	27,600	16,300	.....
In 1875	9,150	8,800	.....
In 1876	8,000	9,800	.....
In 1877	27,750	12,150	.....
In 1878	36,340	19,350	.....
In 1879	38,170	16,670	.....
In 1880	21,182	17,478	11,000
In 1881	21,573	14,548	12,361

ROTTERDAM.

Year.	Rye.	Wheat.	Maize.
In 1872	34,700	37,750	.....
In 1873	68,500	58,500	.....
In 1874	84,750	49,025	.....
In 1875	82,800	54,600	.....
In 1876	74,900	86,400	.....
In 1877	81,400	43,050	.....
In 1878	105,100	82,450	8,994
In 1879	134,823	103,393	8,259
In 1880	80,300	100,323	28,748
In 1881	62,803	101,371	23,450

Statement of the imports of wheat, rye, maize, and linseed at Amsterdam and on the river Zaan in 1881, *showing the countries and places where from, in lasts.*

Whence imported.	Wheat.	Rye.	Maize.	Linseed.
United States	3,654	280	4,059	573
St. Petersburg	.....	4,915	.....	9,659
Archangel	.....	.....	.....	957
German Baltic ports	1,324	.....	.....	.....
Danubian ports	1,328	6,458	7,817	.....
Black Sea ports	.....	6,685	485	4,709
Belgium and France	.....	1,920	.....	.....
British India	2,600	.....	.....	3,270
Sundry and indirect	5,642	1,315	.....	1,876
Total lasts	14,548	21,573	12,361	21,044

Statement showing the imports of wheat, maize, and rye at Rotterdam and other ports on the river Maas, during five years last past, and the countries and places where from, in lasts.

WHEAT.

Where from.	In 1881.	In 1880.	In 1879.	In 1878.	In 1877.
Russian Baltic ports	5,994	7,808	42,772	34,300	20,250
German Baltic ports	7,263	8,544	7,790	14,500	10,800
Russian Black Sea ports	30,223	10,635	23,200	11,450	4,100
Danubian ports	3,467	4,726			
United States ports	37,093	58,915	29,216	21,000	5,900
British India	13,722	1,642			
Sundry and indirect	3,609	8,053	415	1,200	2,000
Total lasts	101,371	100,323	103,393	82,450	43,050

MAIZE.

Where from.	In 1881.	In 1880.	In 1879.	In 1878.
New York	10,046	19,226	6,260	5,641
New Orleans	2,147	6,802		
Black Sea	11,257	2,020	1,746	3,353
Sundry places			253	
Total lasts	23,450	28,748	8,259	8,994

RYE.

Where from.	In 1881.	In 1880.	In 1879.	In 1878.	In 1877.
Archangel	384	894			580
St. Petersburg	9,100	20,716	37,781	14,600	33,450
Revel, Pernau, &c	1,875	8,919	19,522	7,900	6,975
Riga, &c	3,412	7,914	13,490	12,000	8,700
Libau and Window	3,631	8,540	9,042	7,100	10,175
German Baltic ports	3,756	4,160	7,291	7,500	3,750
Finland, Sweden, and Denmark	709	2,300			
Russian Black Sea ports	14,517	13,761	33,862	30,300	10,085
Turkish Black Sea ports	7,982	4,615			
United States	6,250	7,697	13,835	25,600	6,600
Sundry places	11,187	784		100	1,085
Total lasts	62,803	80,300	134,823	105,100	81,400

The following statement shows the lowest and highest prices for American wheat, rye, and maize in the markets of this country in florins, viz:

Years.	Wheat.		Rye.		Maize, mixed.	
	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.
In 1874	255	410				
In 1875	275	325				
In 1876	275	325				
In 1877	325	385				
In 1878	275	345	170	220		
In 1879	270	375	165	240		
In 1880	285	315	210	270	675	775
In 1881	320	350	240	262	725	850

NOTE.—Wheat per 2,400 kilograms, 130 pounds to the hectoliter; rye per 2,100 kilograms, 125 pounds to the hectoliter; maize per 100 kilograms.

Statement showing the stock of wheat, rye, and maize on hand on January 1, 1882, in lasts.

Description.	Amsterdam.	Zaan.	Rotterdam and Delfthaven.	Schiedam.	Dordrecht.	Total.
Wheat	940	175	4,354	184	118	5,771
Rye	2,530	165	1,299	1,967	12	5,973
Maize	24	60	175	.....	.....	259

NOTE—The average quantity of stock on hand at the end of ten years last past has been: Wheat, 5,401 lasts; rye, 29,016 lasts.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, January 20, 1882.

NATIONAL PROGRESS IN MEXICO.

[Translated from the Diario Official of January 28, 1882, and transmitted to the Department by Consul-General Strother.]

The incoming year finds Mexico in the enjoyment of general peace, and earnestly occupied in the development of those material resources upon which her future prosperity in a great measure depends. In all parts of the country the different railroad enterprises are pushing their work with extraordinary activity, so that in a few years the great international lines connecting this republic with the United States of America will be completed.

So general is the popular enthusiasm for internal improvement that almost daily demands are made upon the president of the republic for concessions for new railroad lines, or for the modification of grants and contracts already existing, for the purpose of facilitating their execution. Among the most important contracts, new or modified, we may call attention to the following, viz:

1. A modification authorizing the Pueblo and San Marcos Railroad Company to alter their proposed route by running their line in the direction of San Juan de los Llanos instead of San Andres Chalchicomula, at the same time authorizing the company to build a branch line between Amozoc or Acajete and the town of Tepeaca, upon condition that their trunk line shall be united with the line now in course of construction by the Vera Cruz, Jalapa and Chalchicomula Railroad Company.

2. A contract authorizing Mr. Delphine Sanchez to build a railroad from the Pezalvillo Gate of Mexico, touching at the Peñon Baths, and connecting at Los Reyes with the line running from that place to Irolo.

3. A contract entered into with Mr. Hector de Castro for the building of a railroad from San Fernando or some other point in the latitude of Ciudad Victoria, State of Tamaulipas, and terminating at the port of Tampico. Having acquired control of the Ciudad Victoria and Matamoras branch line (by way of Santander Jimenez and San Fernando), the same referred to in the contract with Mr. Francis Degress, as representative of the Improved International Railroad Company, Mr. Castro is entitled to the same subsidy and assumes the same conditions as

the Degrass Company, except those relating to delays in construction and the manner of paying the subsidy.

4. A contract authorizing Mr. Edward C. Wise to build a railroad from San Benito Harbor to the town of Tapachula, State of Chiapas, with the privilege of prolonging the line to a convenient point of junction with the Mexican Southern trunk line.

On the 6th of January the first rail was spiked on the Merida and Calkini line, the third line now progressing in the State of Yucatan, and serving to connect it with the neighboring State of Campeche.

While on the subject of public works we must not omit mention of the contract concluded with Mr. Manuel Peniche, for the erection of a new wharf at Progresso, making use of the available portions of the work already built, and completing upon the plan of the Mexican Railway Company's mole at Vera Cruz. This work is to be completed within two years, and at the expense of the government, payable from the income arising from the tax of 2 per cent. levied on the custom-house at Progresso, in virtue of section A of the law of May 28th ultimo, and any other revenue which the government may see fit to apply to this purpose. As long as any arrears shall remain impaired the building company are entitled to hold possession of the wharf with the privilege of collecting 75 cents per ton of 1,000 kilogrammes gross weight on all goods landed or shipped at this wharf.

The question of colonization continues to be one of the leading objects of solicitude with the federal executive. During the current month the minister of public works has signed two contracts in this interest. The first authorizes the Southern Mexican Railroad Company, on its own account, or through any company or companies which it may organize, to establish agricultural, mining, or manufacturing colonies in the States of Vera Cruz, Pueblo, Chiapas, and Oaxaca, within a belt of 70 kilometers, or 43 miles, on either side of the road which the said company proposes to build under the contract of May 26, 1881.

The second contract referred to is that concluded with Messrs. Guillermo Andrade & Co., representing the Mexican Colonization and Industrial Company for the Islands of Angel de la Guarda and Tiburon in the Gulf of Cortez (Gulf of California on the maps). This company binds itself to make full surveys and plans of said islands, commencing their operations within three months of the date of said contract and completing them within two years. According to the provisions of section 6 article 1 of the law of May 31, 1875, one-third of the lands will be ceded to the company in consideration of their expenditures incurred in the surveying, plotting, valuation, and description; and of the remaining two-thirds one shall be assigned to the company at the present established prices, to be used exclusively for the purposes of colonization, the remaining third to become national property. This company has the further privileges of taking and exporting oysters, seals, sharks, and whales; of establishing pearl fisheries, and of breeding cattle of all kinds.

On the morning of the 27th one hundred and ninety-seven Italian colonists landed at Vera Cruz.

By the latest advices we are informed that two hundred Italian families have sailed from Italy for Mexico under the Rovatti contract, and a hundred other families under the Rizzo contract, of which we have spoken formerly. All these emigrants come from Genoa. On the same day (27th January) the line of telephone, connecting the Italian colony at Huatosio and Cameron, was completed.

A general meeting of the shareholders of the Mexican National Bank

was held in this capital on the 20th instant. This institution, it is believed is destined to exercise a very powerful and beneficent influence in developing the resources of this republic. Mr. Antonio de Mier y Celis was called to the chair, and declared the Mexican National Bank legally established; and, among others, read the following resolutions, which were unanimously approved:

1st. The general meeting of shareholders of the Mexican National Bank confirms the statement made by the administrative council and the government comptrollers, that all the capital stock of said bank has been taken and that 40 per cent. thereof has been paid in cash, to wit, $40 on each share of $100, making a sum total of $3,200,000.

2d. The general meeting of shareholders approves the concession of bonds to the Franco-Egyptian Bank on the terms and conditions fixed by the statutes of the Mexican National Bank.

3d. The general meeting of shareholders, hereby ratifies the appointment of Messrs. Antonio de Mier y Celis, J. Mannorelsdorff, José M. Bermejielo, Felix Cueves, Ramon G. Guzman, Sebastian Robert, and Gustave Struck, as a board of directors for the Mexican National Bank, and of Messrs. Edouard Durnie, Emile Huard, Max Levy Cremieux, Aug. Lippman Edward Noetzlin, and Manuel Sturbe for the Paris board; provided these gentlemen will accept the position tendered them.

The commerce of the Pacific coast will shortly be increased by the addition of a new line of steamers which will stimulate trade in that quarter. On the 23d instant the secretary of the interior entered into a contract with Mr. Guillermo Andrade, which engages this gentleman to establish a line of steamers which will make regular trips between the ports of Guaymas in Sonora and San Benito in Chiapas. The round trip is to be made in forty-five days or less, if possible, touching at Agiabampo, Topolobampo, Altata, Mazatlan, San Blas, Manzanillo, Acapulco, Puerto Angel, and Salina Cruz, both on the outward and homeward passage. As soon as the company shall be able to increase the number of steamers in this service, two round trips shall be made in the time specified. The steamers plying between Guaymas and Mazatlan are to be from 600 to 1,000 tons, and must be able to accommodate respectively from 50 to 100 passengers of all classes.

The secretary of the interior has also contracted with Mr. Pedro A. Gonzales for the improvement of the Blanquillo River, and the establishment on its waters of a weekly service of steamboats to ply between San Juan Bautista de Tabasco and the Cosahuyapa pass. The establishment of this line promises to stimulate the agriculture and commerce of this fertile portion of the republic, as it will also greatly facilitate the postal communications with that State.

On retiring from a cabinet meeting during the second week in January, President Gonzales was seized with a severe pain in one of his old wounds, and was put under medical treatment. After severe and prolonged suffering he is at length sufficiently recovered to resume his public duties.

By act of Congress of the 10th ultimo, a Mexican consulate has been established at Tombstone, Arizona; a proper officer will presently be nominated to fill the post.

Pursuing this subject we may add that Mr. Hugh Dorman has received his exequatur as vice-consul of the German Empire at the city of Durango. Señor Hercule Saviotti has been appointed Mexican consul at Geneva, and Señor José Antonio Sosa has received his exequatur from the Colombian Government as vice-consul of Mexico at Panama.

General Geronimo Trevino, for reasons strictly personal and private, having resigned the secretaryship of war and marine, has been succeeded by General Francisco Naranjo, who entered upon the duties of this post on the 1st instant.

Owing to bad health the Hon. Manuel Maria de Zamacona, our diplomatic representative at Washington, U. S. A., has tendered his resignation, which has been accepted, and Señor José Tomas de Cuellar, the secretary of legation, will remain as charge d'affaires *ad interim*.

AUSTRIAN CEREALS AND WINE CROP, 1881.

REPORT BY MR. DELAPLAINE, SECRETARY OF LEGATION.

In this empire, where the agricultural products form a chief part of its resources and wealth, a deep interest is universally felt in the result of the harvests, and a desire is entertained to ascertain it, even approximatively, at as early a period as practicable.

An extract from the statements delivered to the imperial and royal ministry of agriculture was yesterday made public, in advance of their complete compilation for the annual official statistical report.

The statements include only the more important classes of cereals, as well as the wine production of 1881, in the provinces of Austria proper, and are shown in the appended table, marked, Inclosure I. Statements of the result of the harvest in Galicia, Istria, and Dalmatia not having yet been received at the ministry, do not appear in the table.

I have to observe that the computation is indicated in thousands of hectoliters, or measures of a hundred liters; the grain measure being in proportion of 35.25 liters=1 bushel; and the liquid measure in proportion of 3.785 liters=1 gallon. In additon to the result of the harvest of 1881, thus numerically exhibited, I beg to communicate a comparison between this and the average result of the anterior period from 1870 until 1880 inclusive. Taking the average harvest during same, of each class of grain, and the average production of wine as expressed by 100, then the percentage rate in the year 1881 will be represented in the appended table, marked Inclosure I.

J. F. DELAPLAINE,
Secretary of Legation.

LEGATION OF THE UNITED STATES,
Vienna, February 11, 1882.

[Inclosure I.]

AUSTRIAN HARVEST—1881.

[In thousand hectoliters.]

Provinces.	Wheat.	Rye.	Barley.	Oats.	Maize.	Wine.
Lower Austria	1,208	3,052	1,163	3,212	155	(!)
Upper Austria	769	1,501	760	1,719	.....	.....
Salzburg	130	194	22	223	.....	.....
Styria	719	983	227	1,370	1,135	280
Carinthia	263	704	222	748	226	15
Carniola	191	142	163	302	236	174
Tyrol and Vorarlberg	256	448	173	133	375	420
Bohemia	4,491	9,589	5,386	9,486	.....	(!)
Moravia	1,363	3,728	2,943	4,479	144	120
Silesia	147	616	417	1,138	.....	.....
Bukowina	231	412	447	565	1,140	.....
Gorz and Trieste	122	16	41	15	95	88

Estimating the average annual production for the ten years 1871–1880 at 100, the following is the percentage of production for 1881, as compared with the former:

Provinces.	Wheat.	Rye.	Barley.	Oats.	Maize.	Wine.
Lower Austria	97	124	95	94	85	(?)
Upper Austria	107	110	101	105	.....	.....
Salzburg	94	97	72	97	.....	.....
Styria	95	105	94	100	96	62
Carinthia	116	126	119	103	115	238
Carniola	101	101	86	91	87	101
Tyrol and Vorarlberg	101	92	92	88	74	121
Bohemia	118	111	117	115	.....	(?)
Moravia	110	120	127	117	92	57
Silesia	105	122	121	111	.....	.....
Bukowina	134	123	106	95	103	.....
Gorz and Trieste	126	88	116	100	45	86

TRADE AND COMMERCE OF GUAYMAS, MEXICO.

REPORT BY CONSUL WILLARD.

Referring to my last annual report on this consular district, I am happy to state that the improvement therein noted in the industrial condition of this district still continues with every prospect of becoming permanent.

The work on the Sonora Railroad has very materially increased the amount of money in circulation among the working classes, and large investments of capital by Americans in the mines and other enterprises give remunerative employment to many persons, both natives and foreigners. Agriculture and commerce have shared in the general prosperity, and the ready sale of agricultural productions has caused an increased demand for the most improved implements of husbandry, the imports of which for this year exceed those of last year by about 50 per cent., and come entirely from the United States.

The total value of importations at this port by sea for this year has increased more than 50 per cent. over that of the preceding year, and amounts, in round numbers, to over $1,500,000, and about four-fifths of said imports come from the United States.

The accompanying tables A, B, and C of imports, exports, and navigation were furnished by the custom house, and are approximately correct.

IMPORTS (see Table A).

From the United States through Guaymas	$1,217,106 65
From Europe through Guaymas	341,636 23
	1,558,742 88

Amount of duties paid on same, $447,115.16.

Since the 1st of November machinery and lumber have been subject to duties, the former paying an import duty of $5 per ton, and the latter $10 per thousand feet, and on account of this duty a large stock of lumber has been imported before this decree came into force, causing this year's importation of that article to amount to nearly 17,000,000 feet, or about eight times the quantity imported last year. By compar-

NOTE.—The above does not include railroad material imported by the railroad company.

ing this year's imports with those of last year it will be seen that the increase comes mainly from the United States.

The irregular importation of goods across the frontier from Arizona still continues, and must necessarily do so while the exorbitant tariff on the staple articles of consumption of American manufacture remains in force, and the opportunities for smuggling goods over a frontier line that does not fall short of 250 miles in length are so numerous that, with all the vigilance of the authorities, it is utterly impossible to suppress it, but it has been checked to a considerable extent.

EXPORTS (see Table B).

The exports to the United States from this district are of the same class and character as those of last year, consisting of gold and silver in bullion and coin, with a few hides and miscellaneous articles.

Silver and gold bullion shipped to the United States through Guaymas	$424,393
Hides and other articles	42,090
Making a total to the United States of	466,483

Nothing is exported directly to Europe, but part of the silver and gold bullion is reshipped thereto from San Francisco. Of the exports to Arizona, United States, across the border, it is impossible to ascertain the amount, but it can safely be estimated that half a million dollars leaves this district clandestinely, without paying any duties.

From the custom-house returns, as shown in this table, it will be seen that there is a great falling off in the export of silver bullion as compared with those of last year. This is accounted for from the fact that in the employment of American capital for the construction of the Sonora Railroad and in the working of the mines, these corporations sell drafts on the United States to parties who were formerly accustomed to pay for their merchandise by shipping silver, which now remains in the country and is employed by these corporations to pay their employés and in their current expenses. The amount of silver produced by the mines has been about the same as in former years.

The falling off in the number of hides reported this year, as compared with last year, is due to the fact that an American tannery has been established in this port, which, during the past year has used, in round numbers, about four thousand hides.

The federal export duty on gold and silver remains unchanged, viz, silver bullion pays 9.41 per cent.; silver coin pays 5 per cent.; gold bullion pays 5.188 per cent.; gold coin pays one-half per cent.

There is also a state government tax on all gold and silver extracted from the mines of 2 per cent., and a test case on this point carried before the supreme court at Mexico was decided in favor of the State government, as mentioned in my report of last year. This tax has now been increased 1 per cent., so that in future it will be 3 per cent.

The production of gold and silver in the south of Sonora (Alamos) is about $300,000, but all is shipped via Ageabampo to the port of Mazatlan (Sinaloa).

NAVIGATION (see Table C).

The tonnage of all vessels for the year entering at Guaymas is placed at 51,184 tons. The tonnage of United States vessels, from the books of the custom-house, is 29,355 tons, or about three-fifths of the whole tonnage, being an increase of about 100 per cent. on the tonnage of last year. That of Germany is 3,008 tons, or about one-seventeenth, and

that of Great Britain 4,351 tons, or about one-twelfth of the total amount of tonnage entered.

The total tonnage for this year is more than four times that of last year, which is accounted for by the amount of material required for the construction of the Sonora railroad, all of which had to be brought from the United States and Europe.

Port charges.—No change has occurred in the rate of port charges since my reports of the two preceding years.

Domestic trade with other ports on the Pacific coast of the republic has somewhat improved since my last report; it consists principally of sugar, soap, woolen blankets (sarapes), cotton shawls (rebozos), cigars, and sundry other miscellaneous articles, in return for which Guaymas sends flour, beans, hats, corn, wheat, hides, and cotton. From official returns, the exports from Guaymas to other ports of the republic for the eighteen months from January 1, 1880, to June 30, 1881, are as follows:

To Sinaloa:	
Flour, 14,640 cargas of 300 pounds, at $14	$204,960 00
Garbanzo (split pease), 299 fanegas of 200 pounds, at $5	1,495 00
Beans, 36 fanegas of 200 pounds, at $5	180 00
Hats, 6,505 dozen, at $1.50	9,757 50
Hides, 338 arrobas of 25 pounds, at $2	676 00
Corn, 174 fanegas of 200 pounds, at $2	435 00
Wheat, 7,947 sacks of 150 pounds, at $4	31,788 00
Cotton, 315 bales, 683 centals, at $17	11,781 00
	261,072 50
To Lower California:	
Flour, 5,902½ cargas of 300 pounds, at $14	$82,635 00
Garbanzo (split pease), 206 fanegas of 200 pounds, at $5	1,030 00
Beans, 93 fanegas of 200 pounds, at $5	465 00
Hats, 2,527 dozen, at $1.50	3,790 50
Hides, 30 arrobas of 25 pounds, at $2	60 00
Corn, 76 fanegas of 200 pounds, at $2.50	190 00
Lard, 20 arrobas of 25 pounds, at $5	100 00
	88,270 50
To San Blas:	
Flour, 262½ cargas of 300 pounds, at $14	$3,675 00
Hats, 240 dozen, at $1.50	360 00
	4,035 00

Making a total to the above ports of $353,378, the proportion of which for one year would be $235,585.34 as the annual exports from Guaymas to domestic ports.

Steamers touching at Guaymas.—As mentioned in former reports, the American steamer Newbern, 1,000 tons, continues her monthly trips with unfailing regularity, and the subsidy of $1,800 per round voyage, for carrying the mail, is punctually paid. The company owning the Newbern propose in February next placing a new steamer of 2,000 tons in the trade, as the increase of traffic between California and this coast, it is thought, will justify it. The Mexican steamer Sonora, of the coast line between Manzanillo and Guaymas, calling at intermediate ports, makes a round voyage in about 20 days, and receives a government subsidy of $1,500 per round voyage for carrying the mail.

MINING INTERESTS.

With the advent of the railroad, mining has received a new impulse and a number of American companies have been organized to work

gold and silver mines in various parts of this State. A valuable deposit of antimony ore was discovered in the Altar district, and the company working the same has made several shipments of the ore, amounting in all to 400 tons, more or less, to San Francisco, from Salinas, near port of Libertad, on the Gulf, and about 200 miles north of Guaymas. Several other deposits of antimony have also been discovered. The valuable property of Ex-Governor Pesqueira, in the northern portion of this State, was also sold to a New York company, and other mines have also changed hands at fair prices. The New York Mining Company, whose mines are situated near Alamos, in the southern portion of this State, are preparing to work them on a large scale. The machinery for a 40-stamp mill is on the ground. A large amount of mining machinery, consisting principally of mills and parts of mills, has entered this port for the following companies, composed chiefly of United States citizens: Minas Prietas, San Augustin, Caborca, Pinos Altos (State of Chihuahua), Baranca, La Trinidad, Gavalan, and Santa Juliana. These mines are being worked. The Minas Prietas yields from $30,000 to $40,000 in gold per month, with an abundance of pay ore in sight.

ANTHRACITE COAL.

The large and well-defined coal measure of anthracite coal, 120 miles from this port, at Los Bronces and La Baranca, in still undeveloped. A franchise has been granted by the Federal Mexican Government to a company to construct a railroad from this port to said coal fields. Up to this time no work has been done on same. This coal is of first-class quality, and is used to a limited extent by the mining companies in the neighborhood for steam mills. As has been previously written, the geological evidences of mines as manifested on the surface in the different mining districts of this consular district are abundant, perhaps more so than those of any other State in the republic; practical experience has demonstrated their richness. In former times mining was conducted on a primitive basis; generally speaking, it was nothing more than surface scratching. When water was reached, or the depth that rendered the extraction of ore difficult and expensive, the mine was abandoned; for this reason many abandoned mines are to be found all over the State. Silver, gold, copper, lead, iron, and coal can be produced in quantities if the necessary amount of capital be invested and managed with proper economy.

AGRICULTURE.

Last year was a fairly profitable one to the farmers, on account of the seasonable rains; and this year the rainfall has been unprecedentedly copious; in some instances the rain storms, which were of unusual violence and duration, caused considerable damage to stock and other farming property, besides doing considerable damage to dwelling-houses in this port; but the abundant harvests that have been gathered in consequence of said heavy rains, will, it is hoped, fully cover all damages and leave, besides, a handsome profit.

From official data it is shown that the amount of capital invested in the production of agricultural staples reaches the sum of $7,000,000. No steps have been taken with regard to the colonization of the rich lands on the Yaqui River, the Indians still occupying them, and raising on them enough to supply their own wants. The scheme of Samuel Branan for colonizing between the Yaqui and Mayo Rivers, mentioned in former dispatches, has not yet been carried into effect.

COINAGE AT MINTS IN SONORA.

There are two mints in this district, one situated at Alamos and the other at Hermosillo, both in the State of Sonora. The following note of coinage was furnished me by the directors of these mints, respectively:

Coinage at Hermosillo mint, year ending September 30, 1881	$708,700 00
Coinage at Alamos mint, year ending July 30, 1881	930,046 45
Total	1,638,746 45

The estimated amount of silver extracted from the mines in the district of Alamos approximates this year to about half the coinage of said mint, the balance comes from the southwestern mining towns of the State of Chihuahua. Considerable quantities of silver ore are exported from the Alamos district to the port of Mazatlan, and thence to Europe. The amount of gold coined at the Alamos mint during the year was $18,040; silver, $910,773.70; and of copper, $1,233.25. At the Hermosillo mint there was coined $7,480 in gold and $701,220 in silver. This is a very large increase over last year's coinage, and is more than $300,000 over the amount coined in 1879, only two years ago.

POPULATION.

With regard to the inhabitants of this consular district, the number of foreigners, mostly Americans, is still on the increase; and among the natives is observed a tendency, lately developed, to flock to the towns from the rural districts; the large towns becoming crowded more from this cause than from immigration or the return of any large number of exiled Mexicans. The foreign population in this district is estimated at about one thousand, divided as follows: Americans, 500; Germans, 250; French and Italians, 250; the employés of the railroad are not included in this estimate.

INTERNAL IMPROVEMENTS.

The Sonora Railroad has now about a hundred miles of road constructed and in running order; and daily passenger freight trains run regularly between this port and Hermosillo, the capital of the State. The rolling stock of the Sonora Railroad consisted, on November 1, of 7 locomotives, 4 passenger cars 116 platform and 50 box cars; and the material on hand was 60 miles of steel rails, and 50 miles of ties; and it had besides 40 miles of the road-bed graded. The first through train to Hermosillo was run on the 4th November, when the company ran free trains from both ends of the line in celebration of the completion of so much of the road, the governor himself and a large number of the principal inhabitants of both cities taking part in the celebration. The company has expended in Sonora in the twenty months from April 1, 1880, to November, 1881, the sum of $690,119, or an average of about $34,500 per month, paid out for labor and expenses, and the absorption of this amount of money in the country caused a corresponding diminution in the export of silver, as already mentioned in its place. The modifications in the company's contract and the misunderstanding between the company and the general government which led to a suspension of the work on the road, have been satisfactorily arranged, and the work on the road has been resumed, and its completion to the line of the American frontier is expected within eighteen months.

Another railroad enterprise, called the Arizona and Nevada Railroad

and Navigation Company, has been formed; they propose to run a line from Callville in Nevada, to Yuma in Arizona, and from thence to Port Isabel and Altar and Libertad in Sonora; but up to date the preliminary surveys have not yet been made in this district.

WATER FRANCHISE.

The holders of the franchise for supplying Guaymas with water have already procured pumps, a quantity of iron pipe, and other materials from the United States for the purpose of conducting water from San José de Guaymas, about five miles distant, to this city; and it is to be hoped that another year will not elapse without seeing the city supplied by them with an abundance of good water for all purposes, instead of the primitive method now in use.

STREET RAILROADS.

The concession for a street railroad is still in force, but work has not yet been commenced by the persons holding the franchise.

The telegraph line from this place to Hermorillo and Ures is in good working order and extensively patronized; there is still a gap of about 300 miles between Hermorillo and Tucson, which if finished would place this port in direct communication with the United States. During the past year a line has been extended from Culiacan (Sinaloa) to Alamos (Sonora), and it is the intention of the government, to whom the line belongs, to extend it to this port, and when completed there will be direct telegraphic communication between Guaymas and the city of Mexico.

A petition was forwarded to the federal government some time ago by a company of several persons praying for the grant of the shallow-water lands in the bay bordering on the city front, for the purpose of filling them in, and after having reclaimed them to devote them to building purposes; up to the present time the petition has not been granted.

APACHES.

During the latter part of the year a band of Apaches, variously estimated, left their reservation in Arizona, United States, and invaded this district, and quite a number of persons have already been killed by these remorseless savages. The local government has taken measures to intercept them, and if possible prevent them from committing any further outrages.

SANITARY CONDITION.

The sanitary condition of this consular district has been excellent; there is no epidemic nor contagious disease to report during the year. There is no report of small-pox being prevalent in any part of the State, and the health of the foreigners employed on the railroad has been remarkably good.

POLITICAL AND FINANCIAL CONDITION.

During the past year perfect tranquillity has prevailed in this consular district. An improved condition of industrial affairs is noticeable, due to the large field for employment and increasing demand for articles of consumption, from which has resulted a measure of prosperity

greatly in contrast to the former condition of this district, and which is not confined to this port alone, but is felt all over the State. The only political event of any importance during the year was the election for governor of the State. It passed off without any disturbance of the peace, and the new governor, Don Carlos R. Ortiz, was quietly installed in the gubernatorial chair last September.

There is at present existing a friendly and harmonious feeling between the authorities of Arizona and Sonora.

The financial condition of this consular district continues to improve very considerably, owing to the increase of business, caused by the prosecution of the work on the railroad; the increased means of rapid communication between this port and the capital of the State; the production of the mines, and the improved condition and flattering prospects of the agricultural districts all over the State, and should no unforeseen event occur to interrupt the present tranquillity, a still greater amount of prosperity may be looked for in the coming year.

ALEXANDER WILLARD,
Consul.

UNITED STATES CONSULATE,
Guaymas, Mexico, December 31, 1881.

A.—*Statement showing the imports at Guaymas for the year ending December* 31, 1881.

Description.	Quantity reduced to American measurement.	Value entered, reduced to American dollars.	Amount of duties.	Country whence imported.
Groceries and provisions ..... kilos..	1,814,083	$262,678 74	298,037 63	United States.
Hardware and crockery ..... do...	482,334	96,491 08		
Iron ..... do...	91,416	1,324 03		
Cotton, linen, and woolen goods... yardo..	1,258,169	129,065 80		
Fancy goods ..... kilos..	6,959	12,220 00		
Implements, mining and agricultural .. do...	151,704	59,183 00		
Lumber ..... feet..	16,806,560	336,128 00		
Machinery ..... kilos..	1,479,857	*320,016 00		
Total	.....	1,217,106 65		
Groceries and provisions ..... kilos..	355,940	195,486 28	149,077 53	Europe.
Hardware and crockery ..... do...	76,428	93,643 43		
Iron ..... do...	87,444	5,780 77		
Cotton, linen, and woolen goods .... yards..	352,927	39,936 40		
Fancy goods ..... kilos..	5,419	5,643 00		
Slates and brick	24,320	1,146 35		
Total	.....	341,636 23		
United States	1,217,107 65	298,037 63		
Europe	341,636 23	149,077 53		

* Overland and by sea.

NOTE.—The before amounts of imports do not include railroad material imported by the Sonora Railroad Company from the United States and Europe.

B.—*Statement showing the exports from Guaymas for the year ending December* 31, 1881.

Description.	Quantity (reduced to American measurement).	Value, including costs and charges (reduced to American money).	Countries whither exported.
Silver bullion.....bars..	18	$24,317	United States.
Gold bullion.....bars..	16	164,219	Do.
Coined silver.....	.....	230,700	Do.
Coined gold.....	.....	5,157	Do.
Merchandise:			
Ores.....tons..	832	5,940	Do.
Hides.....No..	9,626	35,402	Do.
Sundries.....packages..	94	748	Do.
Total.....		466,483	

C.—*Statement showing the navigation at the port of Guaymas, Mexico, for the year ending December* 31, 1881.

Flags.	ENTERED.						CLEARED.					
	Steamers.		Sailing vessels.		Total.		Steamers.		Sailing vessels.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
United States.....	12	11,316	40	18,039	52	29,355	12	11,316	57	16,491	49	27,644
Mexico.....	16	8,480	128	4,079	144	12,559	16	8,480	128	3,396	144	11,876
Germany.....	.....	.....	9	3,008	9	3,008	.....	.....	9	3,008	9	3,008
France.....	.....	.....	1	395	1	395	.....	.....	1	395	1	395
England.....	.....	.....	5	4,351	5	4,351	.....	.....	5	3,653	5	3,653
Norway.....	.....	.....	1	880	1	880	.....	.....	1	880	1	880
Sandwich Islands...	.....	.....	1	636	1	636	.....	.....	.....	.....	.....	.....
Total.....	28	19,796	185	33,082	213	51,184	28	19,796	181	27,823	209	47,456

AGRICULTURE AND COLONIZATION IN GUERRERO, MEXICO.

REPORT BY CONSUL SUTTER, OF ACAPULCO.

AGRICULTURE.

No progress or new feature is to be reported. The cotton crop of the last season, owing to untimely cloudy weather and rain, was not very abundant, and in some places not even half a crop was harvested. Of 1,700,000 pounds harvested 800,000 pounds were shipped from Acapulco to San Blas and Mazatlan, and 900,000 pounds were transported to the interior on mules, this part of the country possessing as yet no wagon roads. The market price of the staple, which compares favorably with "short middling fair," ranged from 16 to 18 cents per pound ready packed for transportation. The part of Costa Chica belonging to the state of Oajaca also produced 500,000 pounds, all of which was purchased for the mills at the city of Oajaca.

The climate of this part of the coast is too dry for the cultivation, on

a remunerative scale, of coffee and cocoa, which plants cannot thrive without constant moisture, and the labor of irrigating is too expensive, and renders thus impossible all competition with places favored by frequent rainfall on the coast east from Acapulco in the states of Oajaca and Chiapas, where the cultivation of coffee and cocoa has proved to be quite as successful as in Central America.

Sugar of low grades is produced in sufficient quantities for home consumption, and with a reciprocity treaty similar to the one in force with the Sandwich Islands, Mexico would furnish to the United States an inexhaustible supply of the staple.

Tropical fruit, like limes, oranges, bananas, pineapples, &c., are cultivated to a certain extent, sufficient to fill all the demands of the San Francisco fruit dealers, to whom a certain quantity is shipped by every mail steamer. Corn, rice, beans, tobacco are raised in abundance for home consumption.

COLONIZATION.

A colonization scheme, gotten up by Mr. Parra y Alvarez, who obtained of the federal government the privilege of bringing foreign emigrants on lands belonging to the hacienda of San Marcos, owned by the federal government, and until now only inhabited by a sparse population of African descent, has so far proved to be a failure, and will probably be abandoned. The emigrants, but few of whom were practical farmers fit for the undertaking—induced to leave California by a rather too glowing description of the lands on which they were to settle, and most of whom arrived here with barely the means to reach San Marcos, whilst each emigrant should have brought money enough with which to purchase some cattle and to live on for one year—found themselves very much disappointed and disheartened when they, on their arrival (in the dry season, when the country looks to disadvantage), found all the lands for miles and miles dry and parched by a burning sun and without any verdure. They were also attacked by malarious fever, and all but three returned soon to Acapulco, and had to leave the country the best way they could, destitute, some of them even as objects of public charity. I am imformed that the three settlers remaining at San Marcos are anxious to leave as soon as they can dispose of their movable property; one family is said to be utterly destitute, without means to move.

The federal government has also sent to San Marcos a few months ago some fifty or sixty Apache and Kickapoo prisoners with women and children; they are guarded by an armed force and kept at the expense of the government; they refuse to work.

The price of public lands in the state of Guerrero is 75 cents per hectare. Large (Spanish) tracts of land, covered by old Spanish grants, are owned by private parties; they are let in parcels to farmers or cattle-raisers. The owner in no case cultivates his property himself, the revenues of which are comparatively small. The following are about the average rates of annual rent: for a parcel of land sufficient for sowing two bushels of grain or cotton seed, $2; for an orchard of about thirty cocoa trees and some lime, orange, and mango trees, $5. For pastures cattle-raisers pay 12½ cents for each head of branded cattle. Transactions in real estate are scarce and prices merely nominal.

RAILROADS.

Although a concession for building a narrow-gauge road from Amacusac to Acapulco was granted at the beginning of the present year,

according to the terms of which the contractors, Messrs. Delfin, Sanchez & Co., of Mexico, were to commence working at Acapulco on the 16th of August last past, no such happy event has as yet taken place, and fears are entertained that the road will not be built for some time to come.

The telegraph between Acapulco and Mexico works well. A message of ten words costs $1.25.

MAILS.

Besides the mail opportunities offered by the Pacific Mail Steamship Company we have a regular tri-weekly mail between Acapulco and Mexico; it is transported by mail-riders on horseback. A weekly mail service exists also between Acapulco and the coasts east and west from here.

JOHN A. SUTTER, JR.,
Consul.

UNITED STATES CONSULATE,
Acapulco, Mexico.

QUICKSILVER IN MEXICO.

REPORT BY CONSUL-GENERAL STROTHER.

In reply to your dispatch No. 94, on the subject of quicksilver in Mexico, I have the honor to transmit herewith such items of information as I have been enabled to collect.

In view of the facts that a considerable quantity of quicksilver is produced in Mexico, that it is imported free of duties into nearly all the principal seaports on the gulf, as well as on the Pacific, and in considerable quantities across the northern frontier; that the commerce in the article is carried on all over the republic by individuals, mercantile firms, and by mining companies direct; that the consumption is active and continual in all the mining operations throughout the country; that between these remote and isolated mining centers there is little or no inter-communication; that there is no central bureau where statistical information on this subject is collected, I have found it impossible to obtain any satisfactory answer to the leading question in your dispatch, nor even an approximate estimate of the stock on hand, in Mexico, at any specified date. The following notes, obtained from the most reliable sources in the City of Mexico, are approximately correct, and comprise all the information obtainable hitherto on the subject.

ON THE PRODUCT AND USE OF QUICKSILVER IN MEXICO, 1882.

The annual product of quicksilver in the Republic of Mexico amounts to about 6,000 flasks of 75 pounds each.

The principal points of production are La Luz, in the district of Huitzuco, State of Guerrero; Gambella, in the same district; and Guadalcazar, in the State of San Louis Potosi.

This product might be increased indefinitely under the stimulus of higher prices, but at present is supposed to be declining, as it cannot profitably compete in price with that imported from the United States.

The average cost of imported quicksilver is about $56 per flask—the price, however, subject to fluctuations depending on supply and rates of exchange. The cost of production in Mexico is not accurately known, but the native product yields no profit at the average price above stated.

The "patio" system, or the beneficiating of the precious metals by amalgamation, is almost universal in Mexico, and nearly all the quicksilver produced and imported is used for this purpose.

The aggregate amount consumed annually is estimated at about 14,000 flasks of 75 pounds.

About 7,000 flasks are imported annually from San Francisco, through the ports of Mazatlan and Manzanillo, on the Pacific, for consumption in the mineral districts of Durango, San Louis Potosi, Zacatecas, and Guanajuato.

The annual imports from Spain and England are about 3,000 flasks, of which about 2,000 go to Real del Monte, in the State of Hidalgo, while the remaining 1,000 is consumed by minor enterprises or held for speculation.

Of late years importations have been increasing, and have been in excess of demand.

The recent commercial revival in Mexico has not, as yet, had any perceptible influence on the mining industry, nor has it in any way affected the quicksilver market.

As an amendment to the foregoing, I can add that from information derived from the director of the mint in this city, the amount of quicksilver on hand in this country January 1, 1882, may be approximately estimated at 5,000 flasks.

DAVID H. STROTHER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Mexico, February 10, 1882.

INTERIOR COMMERCE OF THE ARGENTINE REPUBLIC.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

There seems to be a general misapprehension abroad in regard to the internal commerce of the Argentine Republic. From the fact that Buenos Ayres is the great *entrepot* of the nation at which nearly all ocean cargoes are discharged, there is an impression that there is little, if any, trade outside of this city, but that the "pampas," being devoted to cattle and sheep farming, have few of the wants and require none of the luxuries of civilized life. This is by no means the case. The internal commerce of the country forms no unimportant part of the entire trade. It is not many years ago, it is true, since the only means of inter-communication between Buenos Ayres and the interior, were the lumbering bullock carts, which crossed the pampas in caravans, bringing the hides and wool of the upper provinces to Buenos Ayres, and returning with assorted merchandise and groceries for the "camp" stores. All this, however, has become quite changed. Bullock carts, through certain districts, are still in use, but now the interior of the country is penetrated by several important railways, and every year it is becoming more and more ramified by new lines or by extensions of existing lines. And, whereas the Parara and Uruguay Rivers, two great arteries of communication with the littoral provinces, were navigated only by coasting schooners and other small sailing craft, they are now plowed by regular lines of steamers, which connect Buenos Ayres with all the upper country. Some of these steamers, as commodious as those on our own Mississippi River, extend their trips as far as Asuncion, in Paraguay, and even to Matto Groso, Brazil. The statistical office of the government has furnished some figures in reference to this river or coasting trade which will probably astonish you. It appears that of the entire tonnage, foreign and domestic, engaged during 1880 in the commerce of the Argentine Republic, amounting to 4,198,036 tons, no less than

1,955,454 tons, or nearly one-half, was employed in the interior navigation of the country. The following are the official figures in reference to the latter:

Craft.	Arrivals.		Departures.	
	Number.	Tonnage.	Number.	Tonnage.
Sailing vessels	14,276	388,203	14,227	357,097
Steamers	3,962	620,154	3,684	590,000
Total	18,238	1,008,357	17,911	947,097

Which gives a total movement of 36,149 vessels, with a capacity of 1,955,454 tons.

MOVEMENT OF STEAMERS AND SAILING VESSELS.

The following table shows the arrivals and departures of both steamers and sailing vessels to and from the different ports of the republic, together with the total tonnage during the last year:

To and from.	Arrivals.		Departures.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
Ajó	113	2,613	20	448
Alvear	62	696	69	678
Bahia Blanca	15	2,208	15	1,855
Baródero	467	7,935	181	4,718
Bella Vista	118	4,359	37	1,617
Buenos Ayres	5,281	360,027	5,675	316,450
Compana	538	160,536	248	70,684
Concordia	289	10,907	326	8,712
Corrientes	280	11,045	2,292	58,201
Chaco	12	275	105	3,821
Coronda	6	123	20	491
Chubut	28	1,640	25	1,415
Concepcion	253	5,083	285	8,697
Colonia Alexandra	1	7	1	7
Cayasta	3	144		
Constitucion	1	16	6	23
Caravellas	1	6		
Diamente	48	630	34	638
Ensuado	41	865	75	1,724
Esquina	176	5,029	44	1,554
Empredado	63	4,581	41	2,487
Federacion			19	178
Formosa	26	1,145	573	21,623
Goya	148	4,195	64	2,601
Galeguay	342	22,087	292	21,415
Galegadvchú	370	9,340	153	4,468
Helvecia	113	2,823	63	2,201
Ibicuy	9	1,217	11	1,244
Itati	14	306	1	7
Ita Ibati	6	117	5	426
Ialas	486	2,925	1,468	28,662
Itasaingó	84	2,802	97	3,061
Independencia	10	193	21	528
La Paz	810	28,879	288	10,743
Las Hermanas	6	130	8	152
La Cruz	3	7	5	17
Martin Garcia	471	14,476	66	3,113
Magdalena	138	2,528	151	3,432
Malabrigo	4	38	1	3
Mar de Plata	52	3,755	46	1,928
Monte Caseros	298	3,913	309	3,547
Magellanes			1	228
Paraná	1,226	26,465	749	18,680
Patagones	18	3,471	17	1,628
Paso de los Libres	179	1,940	129	1,410
Posadas	23	1,268	29	801

To and from.	Arrivals.		Departures.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
Puerto Ruiz	17	213	.....	.....
Puerto Aragon	.....	.....	1	10
Queguen	6	221	9	425
Rosario	1,711	164,369	1,457	237,097
Reconquista	66	1,785	25	380
Resistencia	3	20	6	37
Rio Burmejo	.....	.....	1	29
Santa Fé	1,136	53,059	807	55,245
San Fernando	642	12,666	220	5,983
San Pedro	247	3,949	200	5,562
San Nicolas	734	36,238	240	7,296
San Geronimo	72	1,186	46	757
San Lorenzo	72	1,753	19	538
San Javier	.....	.....	1	48
San Torné	202	2,443	267	2,940
San Isidro	1	23	.....	.....
Santa Cruz	5	541	.....	.....
Santa Rosa	1	11	.....	.....
San Martin	4	15	1	6
Tigre	13	280	28	984
Tucjú	59	1,349	177	4,203
Victoria	294	7,544	185	4,656
Villa Colon	153	2,802	70	2,519
Villa Ocidental	1	98	.....	.....
Zaraté	143	3,869	91	2,121
Others	15	249	.....	.....
Total	18,238	1,008,357	17,911	947,097

In explanation of this table, which includes the entire interior commerce of the country, I would state:

1st. That the apparent discrepancies between the number of arrivals and departures at the different ports are owing to the fact that frequently vessels which enter a port under a coasting privilege, after receiving their cargoes are cleared direct for a foreign port, and *vice versa*. In such cases their departures or arrivals are not included among vessels in the coasting, but in the foreign trade.

2d. It will be seen, from a comparison of the number of vessels at some ports with the aggregate tonnage, that whaleboats and other small coasting vessels are still used to a considerable extent in the carrying trade on the upper rivers.

3d. That all the ports included in the above table are on the La Plata, the Paraná, or the Uruguay Rivers, except Bahia Blanca, Chuput, Magellanes, and Patagones, which are on the South Atlantic or Patagonia coast.

NATIONALITY OF VESSELS IN ARGENTINE COASTING TRADE.

I do not consider it important to give the flag or nationality of the vessels engaged in the interior carrying trade of the Argentine Republic. I may state, however, that of the total tonnage so employed 84.3 per cent. was under the Argentine flag; 7.4 per cent. under the English flag; 1.7 per cent. under the Paraguayan flag; 1.4 per cent. under the Uraguayan flag; 1 per cent. under the Italian flag, and 4.2 per cent. under the flags of other nations.

ARGENTINE MERCHANT MARINE.

According to the last report of the captain-general of the ports, the Argentine merchant marine was as follows: 36 screw-steamers of 1,599

horse-power, having 2,103.80 tonnage; 10 paddle-wheel steamers of 1,191 horse-power, having 1,949.20 tonnage; of the first two and of the last, one is of wood.

The sailing vessels are the following:

Class of vessels.	Number.	Total tonnage.	Mean tonnage.
Brigantines	32	3,499.50	110
Schooners	186	7,809.29	42
Barks	5	180.24	36
Whaleboats	572	16,452.34	29
Smacks	56	1,014.95	18
Sloops	244	3,315.06	14
Cutters	33	414.35	13
Gigs	43	512.11	12
Pontoons	1	332.23	.....
Flat-bottoms	35	803.80	.....
Small craft	1,292	3,064.80	.....
Total	2,499	*37,417.87	.....

*NOTE.—This is the net tonnage according to the Moorsom system.

I would state that none of the above vessels are engaged in the foreign commerce, but that the Argentine merchant marine is exclusively occupied in the coasting trade of the country, mostly that of the upper rivers.

ARGENTINE RAILWAY SERVICE.

In regard to the railways of the Argentine Republic, the total number of miles now in operation is over 1,500. The present system embraces the following lines:

1. *Buenos Ayres and Western Railway.*—This road is the property of the province of Buenos Ayres, and now, with its branches to Lobos, San Antonio, &c., has about 220 miles of track. Its present western terminus is Bragado, but it is the intention to push it still further out towards the frontiers. A northern branch is also being extended to Rosario, where it will make connections with all the upper railways.

2. *The Buenos Ayres and Great Southern Railway.*—The present main line of this road now reaches Ayacucho, a distance of 210 miles from Buenos Ayres. It has a branch at Alta Marino, as far out as Azul, 140 miles additional. This is the great artery for the trade of all the southern portion of the province of Buenos Ayres; and it is being rapidly pushed forward in the direction of Bahia Blanca, the northern limit of Patagonia. Being owned by a rich English company, every effort will be made to have this extension completed within the next two years.

3. *Buenos Ayres and Northern Railway.*—This is a short line of only 20 miles, but it connects at the Tigre River, the delta of the Paraná, with the steamers which ply on the latter river, and has a large traffic in connection with them.

4. *Buenos Ayres and Compana Railway.*—This is another local line, running along the Paraná River, a distance of 55 miles from Buenos Ayres to Compana, where it also has connections with the upper river steamers.

5. *Buenos Ayres and Ensenada Railway.*—This road runs down the coast from Buenos Ayres, a distance of 35 miles, to the Punta Lara Mole, where a large amount of heavy merchandise is discharged, the great depth of water there permitting ocean vessels to lie alongside and unload.

6. *Rosario and Central Argentine Railway.*—This road runs from Rosario on the Paraná River to Córdoba, a distance of 244 miles. It traverses the rich agricultural colonies of the province of Santa Fé, and does a large traffic.

7. *Córdoba and Northern Central Railway.*—This is a supplement to the preceding road, extending from Córdoba to Tucuman, a distance of 340 miles. From Tucuman this line is now being pushed forward to Jujuy and Salta, the extreme northern limits of the Argentine Republic.

8. *Transandine Railway.*—This road starts westward from Villa Maria, a station on the Rosario and Central Argentine Railway, and has now almost reached St. Louis, the capital of the province of that name, a distance of 200 miles, and is being rapidly pushed forward towards Mendoza, which place it will probably reach in another year.

9. *Eastern Argentine Railway.*—This road runs from Concordia, in the province of Entre Rios, as far as Monte Caseros, a distance of 96 miles, but it does only a local business at present.

Of the above railways, those running from Buenos Ayres have a large freight and passenger traffic, which, in the wool season, taxes their utmost capacity. The traffic on those running north and west from Rosario is not so large, but they are all great arteries, not merely of trade, but of vitalizing energies, which they distribute through the length and breadth of the republic, civilizing and educating the inactive gaucho in the modern methods of labor and industry. Aside from the immense work they are doing in moving the trade of the country and developing the resource of the interior, their influence in bringing close together the places which have heretofore been wide asunder, and in binding all parts of the republic by stronger and more intimate ties than ever before, is almost incalculable. It is not strange, therefore, that the Argentine national government is doing all in its power to encourage, foster, and extend them.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, December 6, 1881.

PRODUCTION OF PRECIOUS METALS IN THE ARGENTINE REPUBLIC.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

There is no way at present of obtaining a correct estimate of the yearly yield of the precious metals from the mines of the Argentine Republic. The national government requires no returns to be made, and the provincial authorities are notorious for their indifference to collecting statistical information of any kind. The further fact that the mining districts are far in the interior, and most of them remote from ordinary means of communication, renders it difficult to procure information direct from the various mining establishments.

The only remaining source of information is the custom-house returns of exports, which is not accurate from the fact that the entire product of the mines is probably not exported, a considerable portion being used in the country in the arts, and for jewelry and ornaments. In order, however, to give a proximate idea of the yield, I have culled what items I have been able to procure from the custom-house of Rosario, the point

from which such exports are all shipped, and present them in the following table, to wit:

Export of the precious metals in 1880.

Metal.	Whither shipped.	Quantity.	Value.	Total value.
Copper, in bars ..... kilos..	England	152, 575	.....	$45, 773
Copper ore ..... do....	..... do	28, 265	$8, 260	.....
Do..... do	Brazil	520	94	8, 354
Silver ore..... do	England	214, 872	48, 009	.....
Do..... do	France	4, 140	22, 000	.....
Do..... do....	Belgium	4, 536	998	71, 007
Silver metal ..... do	.... do	4, 508	45, 080	.....
Do..... do....	England	2, 760	27, 600	72, 680
Silver ingots ..... marks..	..... do	193, 189	1, 914, 610	.....
Do..... do....	Belgium	10, 291	102, 914	.....
Do..... do	France	3, 986	39, 860	2, 057, 384
Gold ..... ounces..	England	207	.....	8, 312
Other precious metals ..... do....	..... do	.....	7, 130	.....
Do ..... do....	France	.....	1, 140	8, 270
Total exported	.....	.....	.....	2, 266, 780

So that according to custom-house returns, the total shipment of precious metals out of the country, during the year 1880, amounted to only $2,266,780. From this amount, however, is to be deducted $1,416,958, the value of the silver which came *in transitu* from Bolivia, and was shipped to England from the port of Rosario. This leaves $849,822 as the entire visible product of the mines of the Argentine Republic for last year.

This appears like a very inconsiderable contribution to the world's annual supply of the precious metals. Certainly it is much less than the Argentine Republic has heretofore received credit for. Considering the amount of expensive machinery, which in the last few years has been sent into the mines by English and French mining companies, it would indicate either that the value of the mines of this country has been greatly overestimated, or that scientific operations which are to develop their richness have not yet commenced in earnest.

I would state that the greater proportion of Argentine silver at present proceeds from three provinces: Mendoza, in small quantities; Córdova, in which are the well-known mines of Rara Fortuna, with reducing works at Santa Barbara; and Rioja, where the famous Famatina mines are located.

The statistical office of the Argentine Republic, to the attention of which the importance of the subject has been called, promises in the future more extended figures in regard to the production of the precious metals in this country.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, December 1, 1881.

TRANSIT COMMERCE OF BOLIVIA THROUGH THE ARGENTINE REPUBLIC.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

The long protracted and desolating war on the west coast between Chili on one side and Peru and Bolivia on the other, whereby the seaports of the latter have been under close blockade, thus almost entirely preventing direct importation, has had the effect to open up to Bolivia a new channel of commercial communication through the Argen-

tine Republic. As this transit trade now seems quite established and is likely to continue, it may be of some interest to American merchants to be advised in reference to it.

The route which this merchandise has taken to reach Bolivia is from Buenos Ayres up the Paraná River to Rosario, whence it is transported by the Argentine Central and Northern Railways to Tucuman, where it is loaded on bullock carts and conveyed to Salta or Jujuy, thence to Bolivia. This is permitted under a clause in the present Argentine tariff, which provides that merchandise which passes from the custom-houses of Buenos Ayres or Rosario to those of Salta or Jujuy, and from these *in transitu* to those of Bolivia, shall be free of duty, and *vice versa*.

The total commerce between the Argentine Republic and Bolivia for the year 1880 reached the following figures, to wit:

Importations from Bolivia to the Argentine Republic	$32,007
Exportations to Bolivia from the Argentine Republic	360,113
Merchandise *in transitu* from Bolivia through the Argentine Republic	1,570,308
Merchandise *in transitu* to Bolivia through the Argentine Republic	51,214
Total in 1880	2,013,642
Total in 1879	683,045
Increase	1,330,597

It will be seen from these returns, that the actual trade between the two countries only amounted to $392,120. The principal imports* from Bolivia were the following, to wit:

Articles.	Quantity.	Value.
Saddles and harness		$3,595
Coffee ..... kilos	1,957	719
Cocoa ..... do	26,123	23,141
Leather		554
Cotton goods		1,659
Chocolate ..... kilos	1,157	695
Other merchandise		1,629
Total imports		31,993

The principal exports to Bolivia from the Argentine Republic were as follows, to wit:

Articles.	Quantity.	Value.
Jerked beef, &c		$1,419
Beef, cattle, and other live stock ..... number	27,373	208,482
Starch ..... kilos	4,760	735
Rice ..... do	14,435	1,167
Groceries		3,992
Sugar		7,566
Liquors		7,909
Boots and shoes		11,871
Beer		2,456
Copper, in bars		8,697
Barley ..... kilos	100,994	14,526
Iron		10,399
Flour ..... kilos	24,547	1,910
Lumber		6,979
Machinery		17,794
Mercury		2,019
Paper		1,470
Ready-made clothing		1,327
Hats and caps		960
Cotton goods (white)		19,431
Cotton goods (various)		4,953
Sundries		23,331
Total exports from the Argentine Republic		360,113

*This and all the following tables are from the Estedistica del Comercio Exterior de la Republica Argentina, 1880.

The transit commerce which passed through the Argentine Republic from Bolivia during 1880, was as follows, to wit:

Articles.	Value.
Bismuth	$31,815
Quinine	84,866
Hides	15,608
Tin	21,061
Silver	1,416,958
Total from Bolivia	1,570,308

The transit commerce which passed through the Argentine Republic to Bolivia consisted principally of the following articles:

Articles.	Value.
Quicksilver	$6,230
Sugar, refined	2,099
Drugs	5,219
Iron work	11,276
Agricultural implements	117
Machinery	15,645
Cotton goods	6,451
Woods	995
Canned preserves	1,755
Sundries	1,427
Total to Bolivia	51,214

The most interesting item in these tables is that in reference to the movement of silver from the mines of Bolivia through the Argentine Republic to Europe. It will be observed that during the year 1880 the amount which thus found its way out of Bolivia was $1,416,958. It is probable that this is about all the silver that was exported from there during the year. Certainly none could have been shipped from Cobija, as that port was in possession of Chile, though some may have been exported from Arica in Peru, a port from which, as is well-known, previous to the war, a large part of the foreign commerce of Bolivia was dispatched.* It is believed, that with the prolongation of the railway from Tucuman to Jujuy, now in process of construction, thus diminishing the expenses of transportation, and greatly reducing the time of transit, the product of the Bolivian mines will in preference take the route through the Argentine Republic to Europe.

During all last year, owing to the closing of the ports on the Pacific coast, there was a considerable demand for cotton goods by the merchants of Bolivia, the orders coming directly to Buenos Ayres to be filled; and in most cases American cottons were asked for. These, however, at the time could not be procured in this market. Owing to the increased demand at home, the mills in the United States refused to fill orders for cottons for this market, unless they were accompanied by the cash—thus compelling importers to fall back on England, with the usual credits, for their supply.

B. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, Argentine Republic.

* NOTE.—In 1873–'74 the duties on Bolivian exports shipped from Arica amounted to $405,000 gold.—(*Presupuesto de Bolivia*, 1874.)

TRADE AND CONDITION OF RIO HACHA, UNITED STATES OF COLOMBIA.

REPORT BY ACTING VICE-CONSUL HENRIQUEZ.

No favorable change has occurred as yet in the difficulties and serious inconvenience that encumber the prompt development of commerce and industry.

Roads leading to the interior of the country continue in as bad a condition as ever, and the natives, who are of an indolent disposition, are reluctant in applying themselves to agricultural or other pursuits, and render thereby unproductive the natural fertility of the soil.

During the course of the last year an engineer was commissioned by the government of the state to explore the interior and trace a road that is to connect this place with the inland towns. The report made by this engineer in question leads us to hope that the difficulties of communication with the interior will soon be overcome.

A scientific commission has also arrived, charged with exploring the interior of the province, the Sierra Nevada, and the Indian peninsula (Goajera). It left this town for the interior, and all its achievements have been reduced to an incomplete exploration of a coal deposit, which, according to their report, is very rich.

Commerce with the United States has considerably increased of late on account of the destruction the corn crops by the locust. Immense swarms of these insects devastate the country and destroy all hopes of raising grain. If we judge by the damage these insects have done, and still continue to do, a very precarious future awaits the poor of these countries.

The rich Indian peninsula has also been visited by the locust, and the report made by the United States consul at Maracaibo, gives a very exact description of its situation.

Owing to the complete want of the few agricultural products of the country, several American schooners proceeding from New York, and loaded with provisions, have visited this port.

American provisions have been introduced via Curaçoa.

The custom-house returns show the value of imports for the fiscal year to amount to $324,364, of which there were American goods imported to the amount of $106,000.

The value of exports for the same time was $502,851, and invoices have been certified in this consulate for the sum of $212,105.58 destined to New York. To this sum should be added $18,000 worth of products exported via Curaçoa to the same port in the United States.

Both the federal and state governments seem disposed to promote the development of commerce in this section of Colombia, but this can only be achieved by opening practicable roads to the interior, whereby the natural products abounding in the country may be brought to the coast.

A project has been started by an English company to navigate the river Cesar from the interior of this province to Barranquilla. The government has granted this company the necessary concession for the undertaking.

As this country is rich in so many elements requisite to national prosperity, there is reason to hope that commerce and industry will rapidly

increase and develop. Its greatest traffic will, in all probability, be with the port of New York.

F. V. HENRIQUEZ,
Vice-Consul ad interim.

UNITED STATES CONSULATE,
Rio Hacha, January 1, 1882.

COMMERCE AND NAVIGATION OF PARA, BRAZIL.

REPORT BY CONSUL BACKUS.

In forwarding the returns of the commerce of this consular district for the year 1880, I have to remark that after using every endeavor to procure statistics relating to imports I have failed to get any reliable information.

The duties received on imports in 1879 were $1,750,114.53. The duties received on imports in 1880 were $1,499,873.68. By comparing the duties received on imports during the year 1879 and the duties received in 1880, I find that there is a balance in favor of 1879 of $250,240.85.

I do not, however, consider that the above is proof positive that more goods, or goods of a greater value, were imported during 1879 than 1880.

The amount of duties collected without doubt depends, to a great extent, on the manner in which the inspector of customs discharges his duties, and I fear that in many cases the inspectors are very lax.

The duties on exports in 1879 were $876,617.60; the duties on exports in 1880 were $828,553.18, showing a balance in favor of 1879 of $48,064.42.

The total tonnage of American vessels entering this port during the year 1879 was 95,969; during 1880 was 92,642, showing a decrease of 3,327 tons.

Business for the last year has been considered very good among all classes, produce of all kinds being in abundance, and bringing fair prices.

Trade between the United States and this port of Brazil is undoubtedly on the increase, but is to a great extent done through the medium of English, French, Portuguese, and German houses.

I cannot understand why the United States should not be better represented among business houses in this city.

In 1880 we bought $6,847,302.70 worth of produce in this province. We sold quite a large amount of manufactured goods, an immense amount of flour, kerosene, a very small part of which was imported by Americans.

Possibly the apathy of merchants in the United States, which prevents them from looking for business in this country, is occasioned by the good times at home. However, I think there are quite as good openings for Americans with business experience and capital in this part of Brazil, as in the United States, or any other part of the world at present.

Business cannot be successfully carried on in this country without capital and energy any more than it can in the United States, but with a fair share of both, success would be almost certain.

E. BACKUS,
Consul.

UNITED STATES CONSULATE.
Para, Brazil, January, 1882.

TRADE OF VICTORIA, VANCOUVER'S ISLAND.

REPORT BY CONSUL FRANCIS.

MOVEMENT OF VESSELS.

During the quarter there were 49 arrivals and departures of United States vessels at this port, their aggregate tonnage being 40,649.

With the exception of two barks and one schooner, they were all steamers, engaged in making tri-weekly, tri-monthly, and monthly trips from and to Port Townsend, San Francisco, Portland, and ports in Alaska Territory.

The arrivals in foreign vessels were 7—5 in ballast; their aggregate tonnage, 2,255, and were chartered to convey salmon to foreign ports. All departed during the quarter with full cargoes.

There has been no increase in the number of colonial vessels engaged in coasting. For the fur sealing business, two schooners have been built in this port, and another, for the same enterprise, is on the stocks, ready for lanching.

Of disasters on the coast during the quarter, there has only been one, the Chilian bark, Twenty-first of May, wrecked near Race Rock light-house, in the early part of December, during the prevalence of a south-east gale.

IMPORTS

By the arrival of United States vessels, amounted in value, as reported, to $296,411, embracing general merchandise and produce, three-fourths of which, it is estimated, were from the United States. By foreign vessels, from England and United States ports, $168,000. Imports, for the quarter, into this port, $464,411, and into other ports of the province, $40,000. The foregoing is an approximation, as the exact value can only be ascertained on the goods being taken out of bond and duties paid.

EXPORTS

In United States vessels from this port to American ports, as invoiced, including gold dust and bullion, amounted to $508,559.10—leading articles being gold dust and bullion, $254,988.35; salmon, $42,281.77; raw furs, $63,348.86; coal in United States and foreign vessels to American ports (from this island), $127,815.

The following, which I have been permitted to copy at the custom-house, though not including the returns from New Westminster and Burrand Inlet give, within a few thousand dollars, the articles and value of exports from the province during the quarter:

The mines:	
Coal, 47,055 tons	$140,889 00
Gold dust and bars	249,216 00
Iron ore, 300 tons	300 00
	388,405 00
The fisheries:	
Halibut, 1,000 pounds	$90 00
Herring, pickled	125 00
Salmon	691,891 00
Fish, other, 3 barrels	30 00
Fish oil, 4,952 gallons	2,184 00
Marine furs	2,400 00
	699,979 00

Animals and their produce:	
Furs, undressed	$75,127 00
Bones, horns, and hoofs	275 00
Hides and skins	10,129 00
Wool, 35,397 pounds	5,992 00
	91,423 00
Agricultural products:	
Hops, 2,835 pounds	$567 00
Malt, 56 bushels	65 00
	632 00
Manufactures:	
Ale, 156 gallons	$96 00
Matches, 80 gross	48 00
	144 00
Recapitulation:	
Produce of the mines	$388,405 00
Produce of the fisheries	699,979 00
Animals, and their produce	91,423 00
Agricultural products	632 00
Manufactures	144 00
	1,180,583 00

PUBLIC WORKS, &C.

But little advance has been made on the dry-dock at Esquimalt Harbor since November, on account of the weather, and the latter is reported to be materially interfering with the progress of the construction of the Canadian Pacific Railroad.

Our winter has been the most open and rainy experienced for the last ten years.

ALLEN FRANCIS,
Consul.

UNITED STATES CONSULATE,
Victoria, V. I., January 13, 1882.

EXPORTS AND IMPORTS OF ST. JOHNS, N. F.

REPORT BY CONSUL MOLLOY.

I have the honor to inclose herewith a condensed copy of the exports for the year ending July 31, 1881; also, the estimated value of imports for 1880, together with number of population, cost of imports, per head, 1880; exports, per head, 1881, and individual taxation.

Since September ten miles of railroad have been built, five miles of which are in working order, four hundred and fifty miles to be completed, terminating at Bay of Notre Dame, with a branch to the Bay of Island. The imports from the United States have exceeded nearly double the amount of other years, but the exports thereto have considerably diminished. Over 36,000 tons of copper ore have been exported for the past year.

THOS. N. MOLLOY, *Consul.*

UNITED STATES CONSULATE,
St. Johns, N. F., January 11, 1882.

Newfoundland exports, 1881.

Cod-fish oil and other products	£1,385 730
Seals and other products	239,440
Preserved or canned fish	27,579
Frozen fish	2,595
Dried fish	300
Whale and other oils	1,013
Mineral ores	149,017
Unenumerated articles (say)	2,000
	1,807,674

In connection with the above, it may be mentioned that the imports for 1880 were $6,956,343, estimated value, yielding a revenue of $852,341.

The estimated population is 181,753.

Imports per head, 1880	$38 33
Exports per head, 1881	42 08
Taxation per head, about	4 80

THE FISHERIES OF GASPÉ BASIN.

REPORT BY CONSUL HOLT.

It appears proper, as an explanation, to premise that isolated as this consulate is, on the outskirts of civilization, on a coast where the trade and navigation consist almost exclusively of the business of the fisheries, and the recognized value of the consulate entirely due to its capacity of usefulness in the interest of American fishermen, there is but little scope for the introduction of information of facts of interest to the mercantile community of the United States in a commercial report from this district.

The cod-fishery statistics of the coast for the year 1881 have not yet been made up, but the quantity, it is considered, will be about as usual, though the quality, to a large extent, is not as good, owing to the unusually wet weather of the summer spoiling the curing of the fish.

The export entries at this port show 76,249 quintals, valued at *$303,658. The price paid to the fishermen was $2.80 to $3 per quintal for merchantable fish.

The business of collecting and shipping these cargoes has become so sytematic and monotonous, by the same parties, and so regular are the voyages of the vessels to the South American, Mediterranean, and West Indian markets and back, that the operation has long been a routine with but little variation; the principal difference being that of late years losses and very small profits have been the results of the speculation, in contrast with the rich harvests of former times.

This year, however, the shippers are hopeful of better markets on account of the Norwegian fishery being reported poor.

FISHERMEN IN DISTRESS.

Again the fishermen along the Gaspé coast and Island of Anticosti are in a state of poverty, and many of them dependent upon relief from the government. At last they feel that their vocation has become too precarious to rely on for a living, and many have gone away in search of more promising fields of labor, and more will follow when they can.

* For the year ending June 30, 1881.

They are a hardy set of men, and well adapted for hands aboard vessels on the lakes.

AMERICAN FISHERMEN AND MACKEREL.

No improvement can be recorded of the mackerel fishery, which has so long and surely been disappearing from this coast, and the localities where the fish could be found massed in shoals, formerly, and yielded good fares to the fleet of American fishermen.

Fifteen and twenty years ago Gaspé Bay was a noted fishing ground; *now*, the people of the shore barely get sufficient for their own consumption. It is reasonable to attribute the disappearance of mackerel to the disturbance and fright of the fish, caused by the commotion made in the waters by the many steamships ploughing so continuously through their haunts. There is no doubt but that the large number of steamships which traverse the waters of the river and Gulf of Saint Lawrence have dispersed other fish, for there is evidence of this in the repeated failure of the cod fisheries off the Gaspé coast, near the track of these steamships.

The official report for 1868 of the Canadian fishery officer of the Gulf is interesting as the evidence of a high authority on fishery matters, who watched and studied the operations of the fisheries afloat for many years, and at the fishery arbitration commission at Halifax in 1877, was charged by the Canadian Government with important functions in behalf of the British case, especially in procuring witnesses and depositions, &c. The candor of this report foreshadows the decay of the mackerel fishery, and is pertinent to the case at the present time, when the Canadian inshore fisheries may be said to have collapsed so far as American fishermen are concerned. An extract therefrom is here given:

> Owing to some unknown cause the net as well as the bait mackerel fishery has nearly failed on our coasts. As already stated, the spring fishing at Magdalen Islands had yielded almost nothing to the inhabitants, and foreign schooners which resorted there to pursue the same fishing had barely covered the cost of outfit. According to general opinion mackerel appeared but in very small numbers in Pleasant Bay. However bad this fishery had been, hopes were entertained of the results of the summer fishery. There was, however, to be further disappointment in this instance. Mackerel, it is true, were seen on the shores of Magdalen Islands, Gaspé, and Bay des Chaleurs, but in such limited numbers that, with the exception of a few caught for bait, a very limited quantity was taken at the islands and at Gaspé Bay and Basin. The mackerel would not take bait at the surface of the water, and after trying every means for several weeks to induce the fish to come to the surface by means of bait, the American schooners left the islands and shores of Gaspé with only a few barrels taken. I have since ascertained that at the end of August, or beginning of September, mackerel had been abundant on the shores of Prince Edward Island, and that the schooners which had resorted there had done well. It is to be hoped that this report was true, as otherwise the loss incurred by our own and foreign schooners must have been very large if this fishing had been a failure everywhere.
>
> The cost of outfit is heavy, and to compensate for expenses necessarily incurred by most of the vessels, it was necessary that there should be at least a middling success. The scarcity of mackerel was therefore the reason why I met so very few American schooners near our shores.

The yield of the salmon fishery during the year 1881 was even less than the poor product of the preceding year, both with regard to the gill-net fishing and angling.

The only returns furnished me so far show the angling as follows, viz: York River, 37 fish (largest 38 pounds); Saint John River, 25 fish (largest 32 pounds); Dartmouth River, 4 fish (largest 18 pounds avoirdupois); Grand River, 38 fish (largest 33½ pounds). These rivers are principally fished by American gentlemen.

TOURISTS.

An attractive summer cruising excursion for tourists can be made to the island of Anticosti and the north shore of the gulf from Gaspé Basin by a trip in the sailing mail packet which leaves twice a month (1st and 15th), occupying about fifteen days going and returning, and touching at the southwest point of Anticosti, the west point of Anticosti, at Mingan, and at North Shore, Esquimaux Point, and a very fine route to reach Gaspé during the summer months is via the Intercolonial Railway and steamer from Campbellton, New Brunswick, along the Bay des Chaleurs and Gaspé shores.

The climate is generally fine and healthy; the air very salubrious and invigorating in summer; but in the winter months it is common to witness the reappearance of scarlet fever and diphtheria in some of the small, over-heated, and not over-cleanly houses of the poor people a few miles off.

The general healthfulness of the people of this coast, however, will compare favorably with any other section of country noted for its healthiness.

The last steamer of the season left here on the 23d instant, and in two or three days the last vessels will have gone, as ice has already formed 6 inches thick, through which a channel must be cut for them.

GEO. H. HOLT,
Consul.

UNITED STATES CONSULATE,
Gaspé Basin, November 25, 1881.

NAVIGATION AND COMMERCE AT GIBRALTAR.

REPORT BY CONSUL SPRAGUE.

In transmitting herewith the quarterly returns and accounts of this consulate to the close of the past year, I am unable to report any improvement or marked change in the navigation or general commerce of the United States connected with this port. I have, however, to record an increasing activity in the movement of steamships under the British flag engaged in the general carrying trade of the world, since out of 1,186 steamers that have entered this port during the past quarter, 927 were British. During that same period 44 steamers touched at this port to coal, bound direct to ports in the United States, loaded with valuable cargoes of foreign produce, coming even from Japan and China, of which 38 were under the British flag, 4 under the French, 1 under the Italian, representing an aggregate register tonnage of 56,052 tons.

I continue to be unable to announce any amelioration in whatever concerns American shipping interests, and as a proof of it only three sailing vessels under our flag entered this port during the past quarter, one of them bringing cargo direct from New York to land here, one calling in "for orders," and the other being wind-bound.

As is already well known, steam is practically superseding sail at a very quick pace, which revives the opinion I have already expressed, of the urgency of something in the way of legislation that might stimulate American ship-owners to build and navigate steamships of a class, that if not able to rival successfully British ship-builders and owners, might at least secure for our citizens a share of the carrying

trade of the world. France, Norway, Germany, Italy, and Spain show some improvement in that direction, especially for voyages to distant markets, where the competition is not so great as in Europe. It seems rather strange that American enterprise should not also be occupied in this very important work.

The advance in the value of breadstuffs and tobacco which prevailed some time since in the United States market, and to which my last annual report referred, did not only limit the direct importations from the United States of these important articles of consumption, but was the means of bringing to this market from India, by steamships, supplies of Calcutta tobacco and Bombay wheat, which, though finding a ready sale, did not, however, produce much profit; still these adventures continue to be repeated.

The importation of Indian wheat to this market for sale, presents a new feature in the general trade here, and clearly shows what steam facilities can do, whenever scarcity or want arises in any market, for any particular article of constant consumption.

The coal business continues to be the principal branch of trade here. Gibraltar being a free port, dealers can afford to sell the best steam coal at lower rates than what it generally rules at other ports in the Mediterranean.

In order to make this trade more lucrative, some coal companies are directing their attention to the building in England of steam-colliers, so as to be less dependent upon the chartering of steamers for supplying their wants of coal, and also with a view of turning their investments to profitable account.

HORATIO J. SPRAGUE,
Consul.

CONSULATE OF THE UNITED STATES,
Gibraltar, January 4, 1882.

LIBERIAN COFFEE.

REPORT BY CONSUL-GENERAL SMYTH, OF MONROVIA.

The description of the coffee tree generally will, with the exceptions hereafter named, apply to the Liberian variety; that is, it belongs to the family *Rubiaceæ*, and to the class and order *Pentandria Monogynia*. Its trunk sends forth primary branches in pairs and opposite, and the pairs are at right angles. These primary branches send forth secondary ones, opposite and in pairs, and so on, thus forming a most beautiful and symmetrical tree. The leaves are large, dark green, smooth and shiny on the upper surface; in shape, they are elliptical and pointed, and placed opposite and in pairs, attached to the branches by a short, wingless petiole. The blossom is small, white, sessile; carolla monopetalous, somewhat funnel-shaped, cut at the limb into five reflexed, lanceolate segments. The fruit or berry is at first green, but as it approaches maturity it becomes more and more of a deep red color. Between this outer red covering, which is of considerable thickness, and the second covering, which from its color and consistency is called the parchment hull, there is a sweet, mucilaginous substance. There is also a third thin, semi-transparent skin, which immediately covers the bean, and is called the "silver skin."

The exceptions which the Liberian coffee forms to the above description, and which constitute it distinctively a variety, are:

1. Its unusual size. Wild trees are found in the forest more than 30 feet high, and 10 to 12 inches in diameter. So, also, the cultivated tree exceeds in size that of any other variety.

2. Its tendency to vary in the number of primary and secondary branches. With the Liberian coffee tree generally the branches are arranged in pairs; but occasionally one sees a single primary branch shooting from the trunk, and sometimes a single secondary one. Sometimes, also, three primary branches shoot out from one node and three secondary branches.

3. The size and color of the berry. In size, both the cultivated and the wild Liberian coffee exceed that of any other known variety. Some berries from a wild tree in the section of country beyond Careysburg, about forty miles from the sea, were found to be one-third larger than any hitherto discovered. As a rule, the berries are entirely red when ripe; but some are red on one half and yellow on the other. Some are red on one-half and green on the other. Others, when ripe, are entirely green on the outside, but have the blood-red color on the inside of the first hull. Others, again, are entirely yellow.

4. The characteristics of the flower. In other countries the coffee tree belongs to the class and order *Pentandria Monogynia*. But while the Liberian coffee tree belongs to the order *Monogynia*, its class varies considerably. It may be described as belonging to the classes and order, *Pent-*, *Sex-*, *Sept-*, *Oct-*, *Non-*, *Dec-andria Monogynia;* that is, on the same tree there will be flowers belonging to several classes. The flowers most frequently met with are those of seven and eight segments and stamens. (This tendency to vary in the flower seems to point to the conclusion that the Liberian coffee will degenerate when removed from its *habitat*. This seems borne out by facts, for while in Java, Ceylon, and other countries, Liberian coffee has been produced exceeding in size the coffee of those respective countries, it has always lacked the superior quality of the coffee produced in Liberia and without attaining the full size.)

5. The division of the berry into sections or "beans." Here there is the pea-berry coffee, as in other countries, where one of the beans is fully developed and round like a pea, while the other is abortive. Then occasionally the berry is divided into three beans. Some years ago a gentleman from Careysburg showed the writer two berries of enormous size. On removing the cherry-hull there were seven sections or divisions in each cherry, like the sections of an orange or lime, but the divisions exceeding two are rare.

The virtues attributed to coffee generally are possessed in a higher degree by the Liberian variety, it being of superior quality and strength. It is an excellent beverage in heat or cold, in rainy or dry weather. It prevents the disagreeable effects of over-exertion or fatigue, and the too rapid waste of the body. It is said to possess, also, febrifuge properties, being allied to the family of the *Cinchonaceæ;* and this virtue is contained in the leaf as well as in the fruit. The coffee tree is admirably suited to the malarious districts of the coast, not only absorbing malaria with its broad leaves, but also alleviating or expelling fever by the decoction of its leaves.

As to the origin of the Liberia coffee, opinions at first varied, some supposing it to be indigenous, others thought it was brought here by the Portuguese in remote times and had become acclimated; but at

present the opinion prevails that the Liberia coffee is a native of the country. The reasons for this opinion are—

1. There is no coffee found in any other country of the world, or in any other part of Africa, like this variety. There is a coffee here, the long pointed kind from San Domingo; but the Liberia coffee is confined strictly to the section of country included between 4° and 7° north latitude.

2. It has been found wild from the sea-shore to the section where the mountainous or hilly land descends into the grassy plains on the borders of the Mandingo country. Here the Liberia coffee apparently stops. It has not been found east of this line; nor has it been discovered at Sierra Leone on the north, or below Cape Palmas on the south. In either direction, one meets a coffee of smaller size and inferior quality.

3. The wild coffee is little inferior to the cultivated kind, and, in the instance referred to above, coffee has been found wild in the forest larger than that cultivated.

SOILS BEST SUITED TO ITS GROWTH.

The coffee tree delights most in hilly regions, although found in other situations. In Liberia, while grown in all varieties of soil, it prospers most in soils of a loose nature, such as the sandy and loamy soils, especially if these are strengthened by the addition of rocks. There are two species of sandy soil in Liberia. One has been the bed of the sea most recently. This soil has not been enriched by decayed vegetable and other matter. Its substratum of clay or other earth is at too great a depth to be of service to it; and hence it is barren, or nearly so. The other sandy soil has been somewhat enriched by decayed vegetable and other matter. It has near the surface a substratum of clay. This serves as a reservoir to hold the surplus water which, rising through the sand by capillary attraction, keeps plants growing even in dry weather. This soil is suited to coffee, which grows rapidly in it.

But the soil which must be selected for the coffee plantations, owing to the abundance and superior quality of land of this nature, is to be found on the granitic and thickly wooded hills of the interior and the plains that surround them. These begin their ascent not far from the coast. Their soil is loam, generally intermixed with ferruginous gravel and granite rocks. Gneiss, oxide of iron, feldspar, tourmalin, and other minerals abound in some localities. In some places the granite is more friable than that near the coast, and the fertility of the soil is, to a considerable extent, maintained by the disintegration of the rock. Where the soil does not consist of "hungry gravel," but has a due proportion of loam and gravel and small stones, and this mixture extends to a considerable depth, it is rich and porous. The surplus water, instead of being carried off by "wash," which causes so much damage to land, sinks through the porous soil. On one occasion the writer was surprised to see, at an inland town, some vegetables growing on the steep face of a hill. Remarking that on his farm plants would not thrive in that situation without terracing, and inquiring what became of the surplus rain-water, he was shown the water trickling through the soil at the base of the hill.

But the coffee tree delights especially in a situation among granite rocks. Here the roots seize with avidity the surrounding rocks, and, probably by catalytic force, derive more nutriment than by the ordinary wear of the rock. The potash obtained by disintegration of the feldspar is most beneficial to it. It is in such situations that the Liberia

coffee acquires that superior flavor that is not equaled by any other coffee on the globe. On low lands the largest berry and largest crops are produced; but it is to the dry, rocky hills one must look for finest quality.

TEMPERATURE.

Situated between latitudes 4° and 8° north, for the production of the finest coffee the climate of Liberia is unsurpassed. The temperature ranges from 74° to 88° Fahr., in the shade. It occasionally reaches 90°. The lowest observed in Monrovia was during the prevalence of the harmattan winds in the month of January, when the thermometer stood 62° Fahr. at sunrise. The range is not so high in the interior, as the land rises rapidly. About 25 miles from the coast the land in some places is 550 feet above sea-level; and at the distance of 198 miles from the coast it is 2,200 feet. But notwithstanding this difference of altitude the coffee is of the same superior quality wherever found, whether it be near the sea or in the interior *cæteris paribus*. Our long, dry season tends to mature the bean thoroughly and develop its peculiar aroma.

METHOD OF CULTIVATION.

The method of cultivation is somewhat similar to that adopted in the East Indies. The forests are cleared in the same manner. The undergrowth is first cut, then the large trees are felled, lopped, and, when sufficiently dry, the whole is set on fire. The stumps of the trees are sometimes immediately removed, but not always. Most of these rot after a few years. The entire ground is not plowed or dug up; but holes are dug at proper intervals for the reception of the plants. These should not be less than 12 feet apart, and should be dug in straight parallel lines. Plowing, by loosening the soil, would, on sloping land, render it liable to be washed away by the heavy rains. The plants are taken from the nursery when from a year to two years old. Plants a year old grow faster than older ones.

In planting, the cherry hull is removed, and the seeds are deposited in the nursery in rows 2 to 3 feet apart, and 3 to 4 inches apart in the rows. They can be thinned out when large enough. The seeds are inserted in the ground at a depth of 1 inch, if the showers are regular; but if the weather be dry, then 2 inches. The transplanting is best done at the beginning of the rainy season, in May and June, for then the plants have the entire rainy season to grow and get a good start before the "dries" set in.

The Liberia coffee tree does not need shading. Of a harder nature than any other coffee, it is able to endure the tropical sun. The plants in the nursery must be shaded or mulched during the dry months. The young plants also must be mulched in the dry season, until they are large enough to shade their roots with their own foliage. In Liberia, the coffee tree does not produce largely under shade. In dry weather shade is beneficial to its roots, but the leaves must have the sunshine, to elaborate a due proportion of sap into fruit buds.

The trees are topped at 5 feet height. This rule is not observed by all the farmers. But topping increases the production of fruit, enables the fruit to be gathered more easily and with less damage to the tree. After having been topped the trees shoot out a number of suckers from the body. These should be pulled off by hand; and no secondaries should be allowed to grow on the primary branches nearer to the trunk

than 18 inches. This would give an open space of 3 feet in diameter in the center of the tree for the penetration of sunshine, and for the circulation of air. The trees should be regularly pruned. But if they are properly handled at first, severe pruning will not be necessary.

The Liberia coffee tree does not produce all its flowers at one blooming. The time of blossoming depends upon the occasional showers that fall in the dry season. For, notwithstanding the blossom buds may stand out prominently, they will remain without opening for a space of two months, or until there falls a shower of rain sufficient to saturate the soil. A light shower, that does not soak the ground, will not cause them to open. There is a light blossom in December. The fullest blooms occur in January and February; trees that are cultivated produce blossoms and fruit throughout the year. There is, however, only one full crop, and this is gathered during the months of December, January, February, and March. The cause of the crop requiring so long a time to be gathered arises from the fact that the crop does not ripen at once.

The berries are of different colors when ripe, as stated above, but the red color greatly predominates. It is the rule; the others are the exceptions.

Surface manuring is best suited to the Liberia coffee tree, as it belongs to the class of forest trees whose feeders keep near the surface. Even where the manure is placed in trenches the fibrous roots or feeders penetrate it and seek the surface long before the manure is consumed, seeking air and sunshine, which they need as well as food. Besides, in digging trenches, there is danger of cutting off the spongioles, and thus retarding the growth of the tree.

The coffee pulp, mixed with cattle dung, forms an excellent manure. Guano has been tried with beneficial effects, but as it is very stimulating it should not be used too frequently, and should be alternated with other manures. Ashes, except on new soils, and occasionally a little lime, are of advantage to the tree. The clay from the hills of the *Termites*, or "*Bug-a-bugs*," especially on very light soils, is a good manure. Containing alumina, it prevents the too rapid evaporation of moisture and dissipation of ammonia; and having been moistened with the fluid from the bodies of the insects, it doubtless contains some uric acid, or ather nitrogenous compound. It is a fact that plants of all kinds grow luxuriantly and produce abundantly when planted at the base of these hills.

But it is a mistake to stimulate the trees to heavy bearing beyond their age. This sometimes kills the trees, and when they do not die they are sickly, and require a long time to recover.

There are two methods of hulling the coffee. One is taking off the cherry hull when fresh from the tree, drying the bean, and then denuding it of its parchment hull. The other is drying the entire berry, and taking off both hulls by one manipulation. The former method is the more expeditious. By the latter there is an improvement in the quality of the coffee, as, the beans having been thoroughly dried in both hulls, the peculiar aroma is prevented from escaping. Some say there is also a gain in the weight of the bean; but the coffee is large and tough, and cannot be hulled so rapidly as by the former method. Besides, the two hulls, on drying, adhere together, and are as heavy as the small grain, and it is difficult to winnow them without a waste of the lighter grains of coffee. Then there is to be taken into consideration the long time the coffe requires for drying.

DISEASES.

The Liberia coffee tree is not subject to so many diseases as is that of other countries. There are sometimes observable on the leaves of some trees small yellow spots, which some Ceylon planters, and for a while, the writer, supposed to be *Hemeloia vastatrix*, that pestilence so destructive to coffee plantations in the East Indies. But these spots were found always of the same color, and did not turn black, nor did the leaves drop off, as in the case of the above-named disease, and the trees bore their usual quantity of fruit. Near the woods, where, in other countries, this disease loves to lurk, a few trees have been found with black spots, and the green berries dried up on the trees; but the trees appeared otherwise flourishing.

The borer only occasionally attacks the coffee tree in Liberia. This is the larva of a fly or winged beetle, now identified as the *Xylotrechus quadrupes*. It generally attacks the tree some inches above the ground, and, boring a hole as round as that made by a gimlet, it ascends. The tree soon begins to droop, and finally dies, down to where the borer entered. Sometimes the borer ascends from the tap-root, in which case the entire tree dies. It usually works upward; but the writer once detected six borers starting from the same point, three of them working upward and three downward.

There is a disease that affects the bark of the coffee tree. Sometimes it attacks and destroys only a single branch, at other times it destroys a half or the whole of a tree. In any case, the diseased branch or tree is drooping a long time before it expires. Trees are known to droop for more than a year before dying out. The sap-bark by degrees becomes desiccated, and turns brown. Sometimes, by digging and dunging with some stimulating manure, where the disease has not made much progress, decay is arrested, and the trees after a time resume their wonted vigor. Ceylon planters say this disease is caused by grubs attacking the roots of the trees. Some planters in Liberia hold this opinion; others do not. The disease does not begin always at the root of the tree. Sometimes it appears at the node of a branch; at other times, midway between two pairs of branches; then, again, it ascends in a long line on one side of the tree, while the bark in all other situations is perfectly sound and healthy.

In no case, however, where diseases similar to those in other countries attack the Liberia coffee tree, are their effects so general or so disastrous.

COST OF CULTIVATION.

The questions which, in the present condition of the coffee industry, are most difficult to be answered, owing mainly to unsystematic and imperfect cultivation, are, what is the cost? and what is the production per acre? On these two points, however, approximate estimates may be made.

With regard to land, immigrants receive, free of cost, 25 acres for each family, and 10 acres for each single adult. Large quantities are given as bounty to soldiers who serve in war. Government lands may be bought by citizens for a small sum, the starting price being $1 an acre for front, and 50 cents for rear, lands.

The cost of clearing coffee land may be set down at $10 an acre. Cost of plants per acre, if bought, $6; if grown by the planter in his own nursery, they can be had for one-fourth that sum. But, in buying plants, there is a saving in time of one year. Holing and planting an acre will cost $3. Weeding, the first year, if the ground is thoroughly

cleared and burned at first, will be only half the cost of subsequent years. The cost of weeding after the first year may be set down at $5.50 an acre, when weeding is done after the Liberian method generally, that is, two weedings a year. If the weeding is performed constantly by the hands going over the plantation and keeping the weeds down as fast as they appear, and before they get a start, the cost will be only a little more, while there is much gain in the thriftiness of the tree. There will be no cost for topping or pruning, the first year. About the third year after the trees are planted there will be a cost of $1.50 an acre for topping and handling; and, in subsequent years, the cost of pruning, $1.50 an acre, must be added to this. If the soil be very fertile, there will be no need of manure for several years, until after the trees have borne one or two good crops. If the land be sloping, and much subject to "wash," there must be an additional expense for surface trenching, or terracing.

There is no account, in the above estimates, of tools, buildings, machinery, or superintendence. The cost of these will depend on the taste and ability of the proprietor. The cost will be always in inverse proportion to the quantity of land cultivated.

The cost of picking and preparing coffee for market with the imperfect machinery at present employed, is from 2½ to 3 cents a pound—one-half of which is for picking. This is expensive. Where, however, coffee is produced on a large scale, and manipulated with improved machinery, the cost of preparing for market is much less.

PRODUCE PER TREE AND PER ACRE.

Different estimates have been given of the produce of the Liberia coffee tree. Some state that the trees, if properly cultivated, ought to average three pounds when ten or twelve years old. Others give a higher estimate. The trees in Liberia, owing to lack of means to give them that high cultivation which they require, do not give on an average one-third of the quantity of coffee they are capable of producing. The highest average on any farm has been one pound to the tree. But the trees were of all ages from three years to thirteen. Averaging the ages of the trees, this would be one pound to the tree of eight years, while proper cultivation would have given three pounds. Single trees at eight years have been known to produce five pounds. Six bushels of berries (equivalent to thirty-six pounds of dry, marketable coffee) have been gathered from a single tree. But the tree was old, well manured, and no grass was allowed to grow. The late Dutch consul informed the writer that he gathered, as the produce of two seasons, 220 pounds of coffee from eight trees growing in his yard at Sinou. These are old trees. A Ceylon coffee planter of thirty years' experience in coffee growing, estimates that the produce of an acre of Liberia coffee would, under favorable circumstances, equal that of ten acres of Ceylon coffee.

Now, allowing for overestimates, as well as for small returns from insufficient cultivation, the produce of an acre of Liberia coffee trees ten years old, *properly cultivated*, may safely be set down at 1,500 pounds. Generally, the smaller farms give a higher average than the larger ones; pointing to the fact that the means of the farmers are insufficient to give all their trees the cultivation they need.

It is a mistake to suppose one obtains a crop from trees three years old. The trees begin to blossom in the third year, and the fruit ripens in the fourth year—each tree producing only a few berries.

In other countries the coffee-tree arrives at maturity long before it

does in Liberia. This arises from the fact that the Liberian variety, being larger and hardier, takes a proportionate time to mature.

HINDERANCES TO LARGELY INCREASED PRODUCTIONS.

The export of coffee from Liberia the last season was a little more than 300,000 pounds. Considering the productiveness of the Liberian variety, the fertile soil and genial climate, one would naturally be surprised to see so small a quantity of coffee produced for exportation. But it must be borne in mind that the settlers did not on their first arrival enter largely into agriculture. Their numbers were small, and their means still more limited. Besides, they were drawn away from this noble and profitable employment by the seductions of trade. And although their attention was early called to the advantages of coffee culture, it is only in recent years that any coffee farms have been started. Even now, when the people have so generally begun the cultivation of coffee, the results are not what might be expected.

In the first place, the farms are small; and, as has been stated above, the trees on each farm have not been planted at once, they are of all ages and sizes. Then, again, the trees planted do not receive that thorough cultivation which increased means on the part of the farmers would allow. This want of capital is one of the greatest drawbacks to success in Liberia. There has beeen no colony, in ancient or modern times, planted and sustained with so small an expenditure of money as has been the colony of Liberia. There are no banks in the country; no institutions from which, on good security, farmers can obtain sufficient means for conducting large and profitable operations, or for rendering more profitable the smaller enterprises already undertaken.

The smallness of the number of the civilized population engaged in coffee growing is another cause of the crop not being larger. There is a population available, strong, and laborious, whose efforts ought long ago to have been turned in this direction, that is, the native population. Their habits of farming are not settled. Moving from spot to spot yearly, they destroy a vast quantity of the most valuable timber. If the premiums given some years ago by the Liberian Government had been expended on native producers instead of on the civilized settlers who already appreciated the advantages of coffee culture; and if the government had announced and pursued a settled policy to prevent the wars that often rage in the country, the results would, doubtless, have been astonishingly beneficial.

In reckoning the hinderances to largely increased production, account must be taken of the unsystematic and unsettled condition of labor. From the coast tribes, large numbers are available for agricultural and other purposes. But there must be some agency to see that contracts made for labor are observed by both parties; and that, at the proper time, the laborers are returned to their homes. Even then, the coast tribes, who are principally traders and fishermen, are not so valuable for agricultural purposes as are the Pessahs, Golahs, Barlines, and other interior people who have always been devoted to agricultural pursuits. Then, again, in the case of these interior tribes, several difficulties present themselves. First, when their services are most needed, they depart for their own farms. Secondly, the wars call off from legitimate and profitable labor large numbers of men, to engage in the feuds that have for ages been destroying the aboriginal population. Could these internecine strifes be stopped, there would be enough labor available for the farms both of settlers and natives.

INTERNATIONAL.

A single American vessel last season exported nearly one-half of the coffee grown for foreign consumption. About two-thirds of the crop went to the United States. And this proportion has been steadily maintained all through the coffee industry. While European countries buy coffee largely for re-exportation, the United States purchase this commodity principally for consumption; and, therefore, paying a higher price, they will always compete successfully with other countries. Another reason for the larger exportation to America is, American manufactures and other products are especially desired by those engaged in coffee culture.

Now, it seems a mere trifle, this exportation of so small a quantity. But it must be remembered that coffee production in Liberia is in its infancy. The figures above are small; but they are—

> The baby figures of the giant mass
> Of things to come at last.

By removing the hinderances now in the way of large production, the coffee grown in Liberia would be of such a quantity as would affect American commerce for good.

The people of Liberia look in two directions for aid to bring about this desirable result. First, they look to American capitalists. They believe if some arrangement, some legal enactment could be decreed, by which the interests of capitalists could be thoroughly secured, money would be introduced into the country for the production of coffee, for manufactories, for the making of roads, and for other enterprises. They are doubtless correct in their opinion, when they think American capital can be introduced without endangering their republican institutions, and with less risk to the safety of the state than can that of any other country.

Again, the people of Liberia look to the United States Government for co-operation. Now, the writer does not wish to incur ridicule when he modestly hints that it is by encouraging the emigration of the negro population of America and their settlement in Liberia, this co-operation will be most effective. It may at first sight appear an inconsistent method of denationalizing their citizens, for the United States to encourage this emigration. But on careful consideration, such a course will be found to be only in keeping with the efforts, which not only American philanthropists, but also the United States Government have always made to sustain the infant colony and republic. It would be helping to transmit *in perpetuum* those republican traditions which they have handed down to us. This help would arrive most opportunely. It would come at a time when European monarchism, with loud raps, is knocking at the door of Liberia.

When the civilized settlements planted farther and farther in the interior shall have become numerous and strong enough to settle the wars that harass the land, labor will be settled and productive, and the natives, inclined to peaceful pursuits, will engage largely in the growing of coffee. As soon, too, as there is some security for labor, and some protection for trade, other commodities will be increased; and there will spring up a large and profitable commerce, to which the present commerce of the country bears no proportion; and, with suitable encouragement, the larger portion of this commerce will flow towards the United States.

JAMES H. SMYTH,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Monrovia, Liberia.

NOTES.

Steam communication between Brazil and New York.—Commercial Agent Emery, of Manaos, under date of January 20, 1882, writes as follows concerning steam communication between that port and New York:

The contract for a direct line of steamers from New York to this city has been awarded to an English company, service to commence on the 30th of April ensuing. The ships are to be of 1,000 tons capacity, and are to make a round trip each four months. The subsidy granted by their government is about $4,500 for each voyage.

When this line goes into operation the duty of this office will assume more importance, and I shall be able to report direct exports and imports with the United States, which are at present entered at and cleared from Para.

Cost of the Principal Vessels of the German Navy.—The following is translated from an official publication in a Chemnitz journal and forwarded to the Department by our consul at Chemnitz:

König Wilhelm	$2,424,473 30
Deutchland	1,961,227 10
Kaiser	1,957,795 60
Sachsen	1,857,227 00
Friedrich der Grosse	1,738,213 25
Preussen	1,675,067 10
Bayern	1,649,420 70
Friedrich Karl	1,535,884 45
Kronprinz	1,498,619 60
Hansa	729,568 00
Total for ten vessels	17,007,496 10

In addition to the above sums, there has been paid for repairing the König Wilhelm $465,993.35; Friedrich Karl, $539,091.40; Kronprinz, $290,827.65.

German emigration to the United States.—Consul Griggs, of Chemnitz, under date of December 31, 1881, forwards the following translation of an article from a Berlin newspaper:

The notifications from parties intending to emigrate next spring increase in an unprecedented manner; in fact, according to all indications, we have to expect a *real exodus*. After the most careful investigation, we can guarantee the fact that already 13,700 emigrants are booked for 1882. The greatest part of those engagements were concluded by the agencies of the North German Lloyd, in the interior of the United States. One agency alone, in Chicago, has issued 5,000 tickets for persons living in Germany. In expectation of such an extraordinary emigration, the North German Lloyd will increase the number of departures of its vessels. According to the new plan for 1882, it is intended to dispatch eighteen steamers in the month of March from Bremen to the United States, of which thirteen sail for New York and five for Baltimore.

Trade with Dunfermline.—From this port Consul Myers writes to the Department that there has been a falling off in shipments to the United States, owing doubtless to the fact that our importers have not found the quick sale for their imports of last year that they anticipated. The trade of the United States in American goods in Dunfermline is purely retail, and carried on through the wholesale houses of Glasgow, Leith, and Liverpool. The trade, the consul further states, possesses no feature of development; first, because the greater part of the people of Dunfermline are poor and only able to purchase the necessaries of life in small quantities and of the cheapest character desired by miners and factory operatives; and because of a strong prejudice in favor of patronizing their home products.

Condition of American trade with Southampton.—The annual report of United States Consul Thomson for the year 1881 shows an increase in the value of exports from that port to our shores to the extent of $9,406.38, the total value being $48,938.87. Consul Thomson advises also that thirty-three vessels (sail and steam) arrived with cargoes of American grain, and discharged at that port. These ships carrying our products were, of course, foreign.

The exports of the United States to that port were cheese in large quantities, bacon, beef, pork, lard, herring, honey, flour, apples, canned articles, with many novel "notions" of metal, and other materials.

Increased trade with Dublin.—The Department has advice from United States Consul Barrows that there has been an increase in the value of declared exports to the United States from that port during the year 1881 of $143,338.40, as compared with the preceding year.

The articles purchased by our importers were of varied character, chief of which were salted hides, ale, and porter. During the year 1881 Consul Barrows also notes twelve ships arrived, aggregating 14,015 tons, against ten ships during the previous year, aggregating 13,007 tons, from the United States. Of these, eight ships brought wheat from San Francisco, and the other mostly petroleum from New York. The nationality of the flag under which this trade is increasing is, however, not stated.

Quicksilver in France.—The Department has advices from Consul-General Walker at Paris discrediting the report that there exists no monopoly in the trade of this article in France. The most accurate and complete statistics of the trade have been obtained from the director of customs of the quantity imported, as follows: 1880, 361,463 pounds; 1881, 415,404 pounds; showing an increase of 55,941 pounds, and comes almost entirely from England.

The quantity re-exported has been as follows: 1880, 14,072 pounds; 1881, 20,141 pounds; showing an increase of 6,069 pounds.

The purpose for which this article is used in France is in the manufacture of felt, as well as for looking-glasses and various pharmaceutical preparations. The consul-general was unable to ascertain the total amount on hand at present.

American trade with Mexico.—Consul-General Strother has forwarded to the Department the following list of merchants in the city of Mexico who import merchandise from the United States:

Names of houses.	Class of merchandise imported.
Agustin Gutheil & Co	General machinery, dry goods, hardware, cutlery, &c., sewing-machines, &c.
Santiago C. Lohse	General machinery of all kinds, hardware, cutlery, stationery, perfumery, mining materials, &c.
Guillermo Lohse's successors	Hardware, ironmongery, cutlery, fancy goods, &c.
Robert Baker & Co	The same and sewing-machines.
Alexander Jacot	Do.
José María del Rio	Do.
Walker Brothers' successors	Do.
Ellis Read	Machinery, printing presses, type, and stationery.
John White	Machinery, engines, tools, &c.
Vera Cruz and Mexico Railroad Company.	Locomotives, rolling stock, rails, and everything connected with railways.
Mexico and Toluca Railroad Company, Pedro del Valle, president.	Rails, street cars, trucks, &c.
Circuito Central City Railroad, Viuda de Escalante & Co.	Do.

Names of houses.	Class of merchandise imported.
Morelos Railroad Company	Rails, street cars, trucks, locomotives, &c.
Barron, Forbes & Co. (bankers)	Cotton, woolen, and agricultural machinery, sugar and flour mills, &c.
Real del Monte Mining Company, Benito Gormez Farias, secretary.	Mining machinery, steam engines, &c., dynamite and powder.
Las Maravillas y Anexas Mining Company.	Do.
Casa de Moneda (mint)	Mining and coining machinery, steam engines, &c.
Pio Bermejillo (banker)	Cotton and sugar machinery.
Esteban Benecke & Co. (bankers)	Mining machinery, dynamite, &c.
Martin Daran & Co	Do.
M. Cortina Mendoza & Co	Cotton and print machinery.
Sobrino Hermanos	Do.
Estate of Cayetano Rubio	Cotton machinery.
Nicolas de Teresa	Paper and cotton machinery.
Benfield, Brecker & Co	Paper machinery.
Navarro Sanchez	Do.
Samuel B. Knight	Gas apparatus, lamps, lamp posts, &c.
Peter & Henderson	Gas fixtures and plumbers' materials.
Isidoro de la Torre	Cotton, sugar, and flour machinery.
Francisco Azurmendi	Cotton machinery.
Cardeña & Co	Woolen machinery, &c.
Ricardo Saenz	Cotton machinery, stationery and books, letter presses, &c.
Max A. Philipp & Co	General hardware, ironmongery, lamps, glass, earthenware, &c.
Rigal & Masson	Glass and earthenware.
José Gomez de la Viga	Do.
E. Biebuyck & Co	General furniture and hardware, glass, earthenware, wines, liquors, &c.
Edmundo Van den Wyngaert & Co	Drugs, chemicals, colors, stationery, instruments, &c., perfumery.
Labadie & Pinson	Do.
Uhlein & Co., successors	Do.
Mävers, Fribolin & Co	Do.
Farine, Sanders & Co	Do.
Cárlos Maillefert	Do.
Cárlos Leiter	Scientific, surgical, and dental instruments and apparatus.
Cárlos Joranssen	Scientific, surgical, and dental instruments and apparatus, jewelry.
Calpini & Co	Optical and scientific instruments, toys, fancy hardware, and cutlery.
Alberto Gomes	Drugs, chemicals, and patent medicines.
Maximino Rio de la Loza	Do.
José E. Bustillos	Do.
Wexel & Degress	Arms of all kinds, powder (fine), saddlery, harness, and cutlery, sewing-machines, new machinery, &c.
Alfred Boche	Guns, rifles, pistols, swords, and powder.
C. Morel	Do.
A. Lüdert	Paper machinery, stationery, &c.
Nabor Chavez	Printed books and stationery.
Cárlos Fredenhagen	Hops, corks, &c.
Bernardo Bogart (brewer)	Do.
R. & I. Blackmore (brewer)	Do.
Ignacio Ferrer	Chocolate and other machinery.
Clare & Hellion	Wines, groceries, preserves, pickles, ale, beer, and fancy articles.
H. Deverdun	Wines, groceries, preserves, fancy articles, &c.
Suinaga Hermanos	Wines, liquors, groceries, hams, pickles, preserves, crackers, &c., canned meats and canned articles, generally.
M. Naunusui	Do.
Remijio Noriega	Do.
Inigo Noriega	Do.
Noriega & Sotres	Do.
Juan Etcharren	Do.
Leandro Payro	Do.
M. Casso	Do.
Andres Gutt	Do.
Francisco Zepeda	Do.
Ambrosio Sanchez	Do.
Wondracek successors	Wines, liquors, Saint Louis beer, &c.
B. & S. Coblentz	Hosiery, shirts, gloves, ribbons, &c.
F. Coblentz	Do.
Hulvershorn & Co	Do.
General John B. Frisbie	Mining machinery, &c.
Collado Brothers	Machinery, stage axles and materials.
Wagner & Levein	Pianofortes, &c.
H. Nagel successors	Pianofortes, musical instruments, and printed music.
E. Matty & Co	Fancy stationery, chromos, paper hanging.
Victor Debray	Lithographic presses and materials.
Valleto & Co	Photographic materials.
Figueroa & Co	Do.
Cruces & Co	Do.
German, Laue & Co	Watches, clocks, and jewelry.
Adolfo Ducomun	Do.
Lagarrigue & Co	Do.

Names of houses.	Class of merchandise imported.
E. Sommes	Watches, clocks, and jewelry.
Gabriel Zivy	Do.
Louis Charreton	Machinery and mechanics' tools.
James Donochie	Do.
C. A. Bennett	Patent medicines, clocks, and varieties.
Lavie & Co	General, principally wines, groceries, &c.
Lascurain & Co	General, machinery, &c.
Robert & Co	General, dry goods, sewing-machines, &c.
Guichnec & Labadie	General, wines, spirits, drugs, &c.
Hugh Wilson	Coach builders' materials.
Thomas Wilson & Co. successors	Do.
Jougla & Co	Hardware, cutlery, and fancy goods, toys, &c.
Watermeyer, Welchers & Co	Dry goods, linens, woolens, silks, &c.
Büsing & Co	Do.
A. Kienast & Co	Do.
J. Lanretche & Co	Do.
Gassier & Reynaud successors	Do.
Fourcade & Goupil	Do.
E. Ebrard & Co	Do.
E. Sengstack & Co	Do.
Bonne, Ebert & Co	Do.
J. Aubert & Co	Do.
Brehm & Co	Do.
Jauffred, Olivier & Co	Do.
Gurrin & Co	Haberdasahery, hosiery, gloves, umbrellas, lace, and rubber goods.
M. Eberhart & Co	Do.
Julio Uhink	Sewing-machines, printed books, &c.
Clements & Clark	Sewing-machines.
F. Adams	Do.
Francisco Dias de Leon	Printing presses, type, &c.
Estéban Gonzalo	Do.
Ignacio Cumplido	Do.
José Vicente Villada	Do.
Vicente Garciá Tones	Do.
Dublan & Co	Do.
Ramiro & Ponce de Leon	Do.
Viuda Murguiá 6 hijos	Do.
Gerardo Warnholtz & Co	Hat makers' materials.
Zolly Hermanos	Do.
Borel & Co	Do.
Pellotier Hermanos	Do.
Pietra, Santa & Perezcano	Wines, groceries, preserves, pickles, ale, beer, toys, and fancy articles.
Viuda de Genin	Do.

INDEX.

A.

Page.

Acapulco: trade and commerce at 382
Advertising American manufactures 347
Agricultural statistics of Ireland 350
American *vs.* European trade methods in Argentine Republic 315
bank wanted in Buenos Ayres 318
manufacturers: German discrimination against 324
and Irish trade in Ireland 345
manufactures, advertising 347
butter and cheese in Ireland 349
securities in Ireland 349
meats in Ireland 349
goods not wanted in Ireland 352
trade in Scotland 354
journals in Scotland 355
fresh meat in Dundee 356
canned fish in Dundee 357
meats and fruits in Dundee 357
investment companies in Dundee 358
trade in Birmingham 360
in Redditch 362
at Hull 365
seamen, relief of 367
ships 367
trade in Holland 376
cattle and swine: export to Canada 380
vs. Swiss silk manufactures 381
British cotton goods at Acapulco 382
cotton goods at Chin-Kiang 385
shipping at Cardiff 417
exports and imports at Cardiff 417, 418
Argentine Republic: European *vs.* American trade methods 315
interior commerce of 448
merchant-marine 450
production of precious metals in 452
transit commerce of Bolivia through 453
Austrian cereals and wine crop, 1881 437

B.

Bank, American, wanted in Buenos Ayres 318
Belfast: exports to the United States 326, 340
Birmingham: exports to the United States 327, 340
American trade in 360
Bolivia: transit commerce through Argentine Republic 453

Page.
Boot and shoe manufactures at Dundee 392
Bradford: exports to the United States 327, 341
Brazil: commerce and navigation of Para 457
Bristol: exports to the United States 328, 341
trade with the United States 362
British: exports to the United States 325, 340
British *vs.* American cotton goods at Acapulco 382
Buenos Ayres: American bank wanted in 318
Butter, American, in Ireland 349

C.

Canada: export of American cattle and swine to 380
Canal, North Sea 423
Cattle imports at Bristol 365
Cattle and swine, American: exports to Canada 380
Cardiff: exports to the United States 328, 341
Cereals and wine crop of Austria, 1881 437
Cheese, American, in Ireland 349
Chin-Kiang: American cotton goods at 385
Clyde: ship-building on the 371
emigration to United States from 372
Coffee: Liberian 463
Coal trade of South Wales 418
Colombia: trade of Rio Hacha 456
Commerce, foreign, of the Argentine Republic 315
and trade at Acapulco 382
and industries of Hull 408
of Wales 415
and trade of Leghorn 426
and trade of Guaymas, Mexico 438
interior, of the Argentine Republic 448
transit of Bolivia, through the Argentine Republic 453
and navigation of Para, Brazil 457
and navigation of Gibraltar 462
Confectionery trade at Dundee 392
Cork: exports to the United States 329, 341
Cotton goods: British *vs.* American, at Acapulco 382
American at Chin-Kiang 385
Customs regulations and tariff laws in Germany 320
London 335

D.

Discrimination, German, against American manufactures 324
Dublin: exports to the United States 329, 341
Dundee: exports to the United States 329, 341
American investment companies in 358
trades of 388
fishing interests of 394
the jute industry of 398
Dunfermline: exports to the United States 330, 341

E.

Emigration from Ireland to the United States 351
from Hull to the United States 367

Page.
Emigration from the Clyde 372
European *vs.* American trade methods in Argentine Republic 315
Export of American cattle and swine to Canada 380
of potatoes from Leith to the United States 368
of Tunstall pottery to the United States 373
Exports and imports at Mazatlan 386
British, to the United States 325, 340
British, table of 336
Irish, to the United States 352, 353
Swiss, to the United States 374
from Geneva to the United States 375
from Acapulco 383
and imports, American, at Cardiff 417, 418
from Guaymas, Mexico 445
and imports, St. John's, N. F 459

F.

Fish, American cannned, in Dundee 357
Fisheries of Gaspé Basin 460
Fishing interests of Dundee 394
Falmouth: exports to the United States 330, 341
navigation and trade of 420

G.

Gaspé Basin, fisheries of 460
Geneva: exports to the United States 375
Germany: tariff laws and customs regulations 320
German discrimination against American manufacturers 324
Gibraltar: commerce and navigation of 462
Glasgow: exports to the United States 331, 341
industries and trade of 369
trade with the United States 370
Gloucester: exports to the United States 331, 342
Grain imports from United States to Dundee 356
trade in the Netherlands 430
Guaymas, Mexico: trade and commerce of 438
Guerrero, Mexico: agriculture, &c 445

H.

Herring and other fishing (Dundee) 397
Holland: American trade in 376
grain trade of 430
House-building trades at Dundee 391
Hull: exports to the United States 332, 342
American trade at 365
emigration to the United States 367
commerce and industries of 408
geographical position 408
dock accommodation 408
manufactures of 411
timber trade of 411

I.

Imports: into London 335, 342
United States grain, into Dundee 356

Page.
Imports: cattle, at Bristol 365
at Acapulco 383
and exports at Mazatlan 386
and exports of Hull 413, 414
at Guaymas, Mexico 444
and exports, St. John's, N. F 459
Industries and trade of Glasgow 369
jute, of Dundee 396
and commerce of Hull 408
Ireland: Irish and American trade in 345
sanitary condition of 350
statistics, agricultural 350
emigration from, to the United States 351
merchandise not saleable in 352
Irish and American trade in Ireland 345
home manufactures 346
products 348
exports to the United States 352, 353
Iron-working trade of Dundee 391

J.

Journals, American, in Scotland 354
Jute industry of Dundee 396

L.

Laws, tariff, and customs regulations in Germany 320
Leghorn: trade and commerce of 426
Leeds: exports to the United States 332, 342
Leith: exports to the United States 333, 342
export of potatoes to the United States 368
Liberian coffee 463
Linen trade of Dundee 396
Liverpool: exports to the United States 333, 342
London: exports to the United States 334, 342
imports and exports of 335, 342
customs collected at 335
Londonderry: exports to the United States 336, 342

M.

Manchester: exports to the United States 336, 342
Manufacturers, American: German discrimination against 324
Irish 346, 348
silk: American *vs.* Swiss 381
American: advertising 347
of boots and shoes at Dundee 392
of Hull 410
Mazatlan: trade at 386
Meats, American, in Ireland 349
(fresh) in Dundee 356
Merchant marine: Argentine Republic 450
Metals, precious: production in the Argentine Republic 452
Mexico: national progress 434
Guaymas: trade and commerce of 438
mines and agriculture 441

Page.
Mexico: Guaymas: imports at 444
exports from 445
agriculture and colonization at Guerrero 445
quicksilver in 447
Mines and forests of Acapulco 384

N.

Navigation at port of Bristol 364
and trade of Falmouth 420
of the Argentine Republic 449
and commerce of Para, Brazil 457
and commerce of Gibraltar 462
Newcastle-on-Tyne: exports to the United States 337, 342
North Sea Canal 423
Nottingham: exports to the United States 337, 343

P.

Paper stock, exports of, from Dundee to United States 389
Para, Brazil, commerce and navigation of 457
Pearl fishery at Acapulco 384
Pilchard fisheries of Falmouth 420
Plymouth: exports to the United States 338–343
Potatoes: export the United States from Leith 368
Pottery, Tunstall: export of, to the United States 373

Q.

Quicksilver in Mexico 447

R.

Railways in Scotland 393
in the Argentine Republic 451
Redditch: American trade in 360
Rio Hacha, Colombia: trade of 456

S.

Sanitary condition of Ireland 350
Seal fishing of Dundee 394
Seamen, American: relief of 367
Scotch railways 393
Scotland: American trade in 354
Sheffield: exports to the United States 338, 343
Ship-building on the Clyde 371
at Dundee 390
Shipping in Hull 412
British, in foreign trade 334, 342
Ships: American 367
Silk manufacturers: American *vs.* Swiss 381
Southampton: exports to the United States 339, 343
South Wales coal trade 418
Steam communication: New York and Dundee 359
with Acapulco 384
St. John's, N. F.: exports and imports 459

Page.
Swine, American: export to Canada 380
Swiss exports to the United States 374
silk manufactures *vs.* American 381

T.

Tariff laws and customs regulations in Germany 320
Trade: American, in Birmingham 360
American, at Hull 365
American, in Redditch 362
American, in Holland 376
American, in Scotland 354
and commerce at Acapulco 382
and commerce of Guaymas, Mexico 438
and commerce of Leghorn 426
and industries of Glasgow 369
and navigation of Falmouth 420
at Mazatlan 386
between Glasgow and the United States 370
coal, of South Wales 418
grain, in the Netherlands 430
Irish and American, in Ireland 345
methods, European *vs.* American, in Argentine Republic 315
of Bristol with the United States 362
of Falmouth with the United States 421
of Rio Hacha, United States of Colombia 456
of Dundee 388
of Victoria, Vancouver's Island 458
Tunstall: export of pottery to the United States 373
exports to the United States 339

U.

United States: British exports to the 325, 340
emigration from Hull to the 367
export of potatoes from Leith to the 368
export of Tunstall pottery to the 373
exports from Geneva to the 375
grain imports into Dundee 356
Swiss exports to the 374
trade between Glasgow and the 370
trade of Bristol with the 362
trade of Falmouth with the 421

V.

Vancouver's Island: trade of Victoria 458
Victoria, Vancouver's Island: trade of 458

W.

Wages, &c., of jute operatives: Dundee 403
Wales: commerce of 415
Whale fishing (Dundee) 395
Wine crop and cereals of Austria, 1881 437

NOTES.

A.

Page.

American trade with Mexico 473
American merchandise, importing houses of, in Mexico 473
American trade with Southampton, condition of 473

B.

Brazil and New York, steam communication between 472

C.

Cost of principal vessels in the German Navy 472

D.

Dublin, increased trade with 473
Dunfermline, trade with 472

E.

Emigration, German, to the United States 472

F.

France, quicksilver in 473

G.

German emigration to the United States 472
German Navy, cost of the principal vessels 472

I.

Importing houses for American goods in Mexico 473

M.

Mexico: American trade with 473

N.

Navy: German, cost of the principal vessels 472
New York and Brazil: Steam communication between 472

Q.

Quicksilver in France 473

S.

Southampton: Condition of American trade with 473
Steam communication between Brazil and New York 472

T.

Trade: American, with Mexico 473
with Southampton: Condition of 473
with Dunfermline 472
with Dublin: Increased 473

U.

United States: German emigration to the 473

V.

Vessels: Principal, in the German Navy: Cost of 472

24710

COMMERCIAL RELATIONS OF THE UNITED STATES.

REPORTS

FROM THE

CONSULS OF THE UNITED STATES

ON THE

COMMERCE, MANUFACTURES, ETC.,

OF THEIR

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CONTENTS.

CONTINENT OF AFRICA.

Trade and commerce of the Cape of Good Hope: Page.
(Report by Consul Siler, of Cape Town.) 573

CONTINENT OF AMERICA.

American trade with San Domingo:
(Report by Consul Jones) 491
American duties and Canadian exports:
(Report by Consul Blodgett, of Prescott) 496
Changes in the Canadian tariff:
(Report by Commercial Agent Carroll, of Port Stanley) 497
Starch manufacture in the Argentine Republic:
(Report by Consul Baker, of Buenos Ayres) 529
Cotton industry in Canada:
(Report by Consul Crawford, of Coaticook) 571
The harbor of Rio Grande do Sul:
(Report by Vice-Consul Preller) 588
Haytian tariff:
(Translated and transmitted by Consul-General Langston) 604

CONTINENT OF ASIA.

Decrease of American shipping in the Indian Ocean:
(Report by Consul-General Mattson, of Calcutta) 492
Rice culture and cleaning machinery in Japan:
(Report by Consul Jones, of Nagasaki) 565
Trade and commerce of New Chwang for 1881:
(Report by Vice-Consul Bandinel) 569

AUSTRALASIA.

Canterbury (New Zealand) wool 522
(Report of Consul Griffin, of Aukland) 530
Watch and clock trade of New Zealand:
(Report by Consul Griffin, of Auckland) .....

CONTINENT OF EUROPE.

Manufacture of patent fuel in France:
(Report by Consular-Agent Gifford, of Nantes) 477
American coal-tar pitch wanted:
(Report by Consular-Agent Gifford) 478
American timber trade at Liverpool:
(Report by Consul Packard) 479
Inheritance claims in Holland:
(Report by Consul Eckstein, of Amsterdam) 482
American products on the Antwerp market in 1881:
(Report by Consul Steuart) 483

American pork in France:
(Report by Consul Rhodes, of Rouen) 486
American securities in Holland:
(Report by Consul Eckstein, of Amsterdam) 487
Effects in Europe of grain speculation in the United States:
(Report by Commercial Agent Smith, of Mayence) 493
Imports at Mayence from the United States:
(Report by Commercial Agent Smith) 494
Austrian exports to the United States:
(Report by Consul-General Weaver, of Vienna) 495
Trade between Messina and the United States:
(Report by Consul Owens) 495
British and American shipping:
(Report by Consul Canisius, of Geestemunde) 499
Quicksilver in Europe:
(Report by Consul-General Vogeler, of Frankfort-on-the-Main) 501
Remarkable changes in the German imports:
(Report by Consul Canisius, of Geestemunde) 504
The linen and flax industries of Europe:
(Report by Consul Wood, of Belfast) 506
The woolen industry of Bradford:
(Report by Consul Shepard) 513
The silk products of Lyons:
(Report by Vice-Consul Peixotto) 527
Austrian trade with the Orient:
(Report by Consul Thayer, of Trieste) 535
Staffordshire potteries:
(Report by Consul Lane, of Tunstall) 541
Russia's manufacturing industries:
(Report by Consul-General Stanton, of St. Petersburg) 544
Commerce of Russia:
(Report by Consul-General Stanton, of St. Petersburg) 548
The production of boracic acid in Italy:
(Report by Consul Rice, of Leghorn) 551
Shipbuilding at Leith:
(Report by Consul Leonard) 553
Petroleum test—in Germany:
(Report by Consul Grinnell, of Bremen) 556
German emigration statistics, 1871 to 1881:
(Report by Consul-General Vogeler, of Frankford-on-the-Main) 556
Wages and food, prices in Germany:
(Report by Consular-Agent Wamer, of Dusseldorf) 559
British trade returns:
(Report by Consul Shaw, of Manchester) 561
The sardine trade of Bordeaux:
(Report by Consul Roosevelt) 574
Coal imports of Italy:
(Report by Consul Crain, of Milan) 577
European iron industries:
(Report by Commercial Agent Smith, of Mayence) 578
Trade and industries of Germany:
(Report by Consul Bullock, of Cologne) 579
Trade and commerce of Malta:
(Report by Vice-Consul Eynaud) 583

Tobacco trade of the Netherlands, 1881:
(Report by Consul Eckstein, of Amsterdam) 589
Rouen as a seaport:
(Report by Consul Rhodes) 592
Emigration from Wurtemburg to the United States:
(Report by Consul Catlin) 593
Cost of living in Southern France:
(Report by Consul Taylor, of Marseilles) 596
Vital statistics of Germany:
(Report by Consul-General Vogeler, of Frankfort-on-the-Main) 598
Means for the enlargement of American trade:
(Report by Consul Wharton, of Sonneberg) 601
Wine trade of Burgundy:
(Report by Vice-Consul Peixotto, of Lyons) 602
Cotton spinning in Germany:
(Report by Consul Spackman, of Munich) 603

POLYNESIA.

Trade and commerce of Tahiti:
(Report by Consul Atwater) 600

NOTES.

The British tariff 644
Coffee of Brazil 644
Coffee of Hayti 644
Quicksilver in Hong-Kong 644
Vintage of France, 1881 645
Stock in Austria 645
Cotton movement in Barcelona 645
Steam communication between Amsterdam and New York 646
INDEX I

CONSULAR REPORTS

ON

COMMERCE, MANUFACTURES, ETC.

APRIL, 1882.

MANUFACTURE OF PATENT FUEL IN FRANCE.

REPORT BY COMMERCIAL AGENT GIFFORD, OF NANTES.

In compliance with the instructions contained in Department dispatch No. 30, February 11, 1882, I have the honor to submit the inclosed report in regard to the process of manufacturing the so-called "patent fuel."

The coal dust which was formerly rejected as worthless is now burned in immense quantities in France in the form of "patent fuel" or coal bricks. The natural supply of dust from the yards of the coal merchants being entirely insufficient for the needs of the brick-works, the manufacturers in this part of France import a large part of their dust from Cardiff, Swansea, and Newport, with what is known as the "Merthyr small steam coal," from which the dust is sifted, leaving from 10 to 15 per cent. of fragments to be sold at a somewhat reduced price for use as ordinary fuel. This coal, being in a large measure free from smoke and odor, is the only kind in use here for "briquettes," the highly bituminous coals being unsuited to that purpose.

PROCESS OF MANUFACTURE.

The process of manufacture is extremely simple. The coal dust is mingled with "pitch" (*brai minéral*), a substance described in a previous dispatch, derived from coal tar, and the mixture poured into cups attached to a belt, each cup containing just enough material for a brick of the size desired.

The belt in its movement passes this material through a chamber where it is exposed to hot steam, which fuses the two substances into a homogeneous mass. This is poured by the descent of the belt into molds, where it is subjected to an enormous pressure by a hydraulic press, or by machinery set in motion by a steam engine.

The brick is square in form, its thickness being about one-third of its other dimensions, and, as manufactured here, weighs 5, 10, or 15 pounds. The railway companies refuse to accept fuel unless at least 10 per cent. of pitch has been used for its agglomeration.

Fuel manufactured with a smaller per cent. of pitch is, of course, of inferior quality.

PRICE.

I am assured that during a number of years the Orleans Railway Company bought annually, by contract, from 45,000 to 60,000 tons of "briquettes" at the rate of 27 francs per ton; but it is said that the same company now pays but 21 francs per ton.

COST OF MANUFACTURE.

A gentleman who has been extensively engaged in the coal-brick business makes the following estimates in regard to the cost of material and other expenses attending the manufacture:

Coal, per ton, in Wales	$1 00 to $1 25
Freight on same	1 60 to 1 60
Duties on same	26 to 26
Handling, sifting, &c	56 to 56
Tenth of a ton of pitch	1 00 to 1 20
Total cost per ton	4 42 to 4 87

The dust purchased directly from the local merchants costs $2.80 a ton, delivered at the works. The pitch costs from $10 to $12 per ton.

ALLEGED ADVANTAGES.

It is claimed that "briquettes" are preferable to ordinary coal for exportation to the colonies and to warm climates, on account of their compact stowage and freedom from small fragments and dust; also for use on locomotives, both on account of the economy of space which they permit, and because firemen can always determine the amount of fuel they are employing in a given time, the weight of each brick being exactly known.

Finally, the manufacturers claim that the "patent fuel" is more healthful for domestic use than ordinary coal, citing in support of this idea the declarations of well-known physicians. Accordingly, they are at present producing bricks of various smaller sizes, perforated with circular or longitudinal openings, which are adapted to this latter use.

GEORGE GIFFORD,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Nantes, March 6, 1882.

[Appendix to Mr. Gifford's report.]

For a fuller understanding of the subject of patent fuel, the following report is herewith republished; it appeared originally in No. 16, February number of these publications.]

AMERICAN COAL-TAR PITCH WANTED.

REPORT BY COMMERCIAL AGENT GIFFORD, OF NANTES.

I have the honor to inclose a translation of a portion of a letter which I have received from the director of Mr. Charles Goddard's extensive manufactories of "patent fuel" at this place, at Tours, at Les Sables, and at St. Nazaire. The writer wishes the contents of his letter to be

communicated to the merchants of the United States, and as the matter seems to be of general interest I have thought that the Department might deem it proper to give publicity to the facts.

Mr. Goddard's proposition is intended to open a market for a large quantity of pitch manufactured from coal tar. It seems quite probable that this article could be sent from the United States at remunerative prices, owing to the absolute need of it for carrying on the business in which Mr. Goddard and many other capitalists are engaged.

GEORGE GIFFORD,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Nantes, December 10, 1881.

[Extract.—Translation.]

Mr. Goddard to Consul Gifford.

ST. NAZAIRE, *November* 29, 1881.

SIR: The pitch of which I make use in the manufacture of fuel from coal dust is not now to be had in sufficient quantities in Europe, and has, therefore, reached a high price. I have been told that large quantities of this substance exist in the United States, of which no use is made. I have thought, therefore, that the possessors of this material in the United States would be interested to know that they can now make a profitable sale of a substance which they have regarded as useless.

Under the circumstances, I have to ask you to have the kindness to bring this communication to the knowledge of the merchants of the United States in such a manner as to induce proposals from them. Such proposals will, under the circumstances, be most favorably considered.

For the moment I have need of five or six thousand tons, and this quantity is likely to increase greatly. I will accept it by cargoes of ten or fifteen hundred tons, or in smaller quantities by steamers or sailing vessels, as the shipper may desire.

The pitch which I use in my business should be made from the coal tar produced in the manufacture of illuminating gas, from which 35 or 40 per cent. of oily matters and essences have been withdrawn. In this state it is a solid at ordinary temperatures, and melts at 50° or 60° *centigrade*. Calcined in a close vessel, it yields from 50 to 60 per cent. of volatile matters. It must be free from all foreign substances.

THE AMERICAN TIMBER TRADE AT LIVERPOOL.

REPORT BY CONSUL PACKARD, OF LIVERPOOL.

In accordance with the Department circular of the 1st July, 1880, I have the honor to make the following "special" report of the American timber trade at this port:

It appears from the returns published by the British Government that during the year 1880 (the last published) there was imported from the United States into Great Britain 333,510 loads of timber, hewn, sawn, and in staves, and 11,521 tons hard wood for furniture, the value of the whole amounting to $5,927,450; and in addition there was imported manufactured timber, *i. e.*, house frames, fittings, and joiner work, of the value of $517,109.

The importation of manufactured timber only commenced in 1876. The value of the import during that year was $30,296, since which time it has continued to increase largely each year. The year's importation is considered by the brokers to close on the 31st January of each year.

The particulars of the following report have been furnished by timber

brokers who deal largely in American timber in this city, and whose opinions are reliable and trustworthy.

The year 1881, on the whole, has been more satisfactory to those engaged in the wood trade than has been experienced for several previous years; and although business opened dull, owing to the protracted winter, with prices declining during the earlier months, a firmer feeling was shown later on, when it was seen that only moderate imports were likely to come to this port. Yet no general increase in price was obtainable, on account of the continued depression in the building trade.

The better feeling in the trade of the country began to manifest itself towards autumn, and an upward movement in rates commenced, which was maintained up to the close of the year. The prospect for the future is not so hopeful as was anticipated a month ago. The high prices demanded abroad for nearly all kinds of wood goods, together with the enhanced value of money, tend to render buyers very cautious in their operations. With the exception of pitch pine, the stocks are within a moderate compass, but with a continuance of the present exceptionally mild weather, which will open the shipping ports much earlier than usual, they will in all probability be found sufficient for the wants until the commencement of the new import season.

Pitch pine.—The present stock of this wood is considered far too heavy, seeing that it is on the eve of the new season's arrival, and although this wood is gradually ousting the commoner qualities of Quebec yellow pine and Baltic fir from the important position they once held in this market, the persistent manner in which supplies are forced tends to make buyers diffident of purchasing at present rates.

The present stock consists of 523,000 feet of hewn, 324,000 feet sawn, and 74,000 feet planks. Deals and planks do not command much attention, the quantities brought forward as stowage in cargoes being found sufficient.

The present wholesale prices for pitch pine are as follows: Hewn, per cubic foot, 30 to 39 cents; sawn, per cubic foot, 28 to 34 cents; planks, per cubic foot, 28 to 30 cents.

Oak.—The stock in hand is about 86,000 feet of logs, which is composed principally of old wood; this description is nearly unsalable. The stock of oak wagon scantling, chiefly in the hands of dealers, is about 78,000 feet. This production is annually increasing in favor with consumers, and the comparatively low price at which it is sold, should command a greater amount of importance than it has hitherto assumed, which will probably be affected if the manufacture is as carefully looked after as the last shipments to this port.

Oak planks cut to sizes suitable for wagon-building has had a large trade; the prevailing sizes being 18 feet long, 5 inches thick, and 12 inches wide, ranging down to 6 feet long. The present wholesale price of oak is as follows: Oak timber per cubic foot, 49 to 61 cents; oak planks per cubic foot, 55 to 67 cents.

Bird-eye maple.—During the past year the import has been 412 pieces against 420 in the previous year, and the stock on hand is now 151 against 269 pieces held on the 1st February, 1881. The demand during the last year has been limited, and prices ruled very low. The present price is 6 to 12 cents per superficial foot.

Pencil cedar.—During the last year import has been 16,812 cubic feet against 11,263 in the previous year, and the stock is *nil.* For good and sound wood, there has been a steady demand at fair prices. The present wholesale price is for logs, 97 cents to $1.10 per cubic foot.

Walnut.—During the last year the import has been 4,088 logs against

2,512 in 1880, but a large proportion of this great increase has consisted of small and inferior wood, which has sold at low prices, while large and prime wood has always commanded high rates. Walnut generally comes to this market consigned in parcels of from 10 to 50 logs, and is in size from 16 to 40 inches diameter, and from 10 to 20 feet long. The wood is sold here per cubic foot, string measure, and which is arrived at by placing the string round the center of the log, dividing it into four, for quarter-girth, and then measuring the string or quarter-girth on a measurement rule. Quarter inches are not taken into account in the quarter-girth, nor half feet in the lengths, that is, if a log measures 19¾ inches quarter-girth it will be called 19½ inches, and if it measures 20½ feet in length it will be called 20 feet, and in making out the cubic contents quarter feet are not taken into account. Thus, if a log contains 30 cubic feet 11 inches, it will be called 30½ cubic feet, or if it contains 30 feet 5 inches, it will be called 30 cubic feet. The difference between Liverpool strings and Queen's calliper, or extreme measure, ranges as high as 40 per cent. Well squared and sound wood will not lose so much, as what might be called an ordinary shipment. The logs being so waney accounts for the great difference in the two measures referred to, but the Liverpool string loses only about 6 per cent. in the New York measure, so that the system of measure in New York must be somewhat similar to the Liverpool string.

Black walnut being largely imported from the United States, the following points may be profitably observed in preparing it for this market. The wood should be manufactured free from rot shakes, rotten knobs; and inferior wood seldom pays the importer to ship. All bark must be removed, the logs squared in order to remove the sap as much as possible, the ends butted at right angles to the sides, and made in length about 2 inches over the foot. There should be as little taken as possible in the logs, at the most about 2 inches in length from end to end. Both ends of the log should be painted red; it preserves the wood and makes it more taking to the eye for selling. The best way to test any wood is to send forward a sample lot, about 10 logs, when from the return made the shipper will be able to judge if it will be to his advantage to continue shipping. The present wholesale price is 91 cents to $1.34 per cubic foot, string measure. Scribner's scale measure is never used here.

Staves.—During the past year there has been a good request at fair to high prices. With the exception of New Orleans pipe and hogshead, all descriptions are light in stock.

The following is the wholesale price of United States staves at present ruling, as quoted by a timber broker who sells exclusively in this market:

	Per M.
Wine pipe, extra heavy, New Orleans	$291 99 to $316 32
Wine pipe, heavy, New Orleans	206 82 to 218 99
Wine pipe, single, New Orleans	133 83 to 146 00
Hogshead, extra heavy, New Orleans	218 99 to 228 73
Hogshead, heavy, New Orleans	170 33 to 182 49
Hogshead, single, New Orleans	116 80 to 126 53
Barrel, single, New Orleans	68 13 to 121 66

Oars.—During the past year there has been a fair demand, and prices have recently advanced. The present wholesale price is, for ash oars, 6 to 8 cents per foot.

There is no duty whatever charged upon imported timber.

Timber is chiefly sent here upon consignment by shippers to brokers to make the sales, and cannot be done directly with the consumer, so

that certain charges would be incurred, of which the following *pro forma* account is a fair average:

Say 2,753 pieces oak planks, measuring 17,000 feet foreign, 16,684 feet Liverpool, at 60 cents per foot		$10,010 40
Charges if sold ex-quay:		
Dock dues and customs entry	$103 56	
Measuring charges	75 12	
Auction, &c., and expenses	48 00	
Interest six months on dues	2 64	
Bank commission	25 02	
Commission and guarantee on $10,010.40, at 40 per cent	400 41	
		654 75
Balance		9,355 65
(Due six months from delivery.)		
If the timber was yarded, additional charges would be incurred, viz:		
For cartage, say	$96 00	
For yard rent, say	36 00	
For delivery charges, say	20 02	
		152 02
Balance		9,203 63

It will be noticed that no freight charge is included in the account sale, this being usually an arrangement made between the shipper and ship owner or broker at the post from whence the timber is shipped, and consequently cannot be included.

STEPHEN B. PACKARD,
Consul.

UNITED STATES CONSULATE,
Liverpool, February 11, 1882.

INHERITANCE CLAIMS IN HOLLAND.

REPORT BY CONSUL ECKSTEIN, OF AMSTERDAM.

I have the honor to report that my efforts to break up the long continued practice of fraud practiced by certain parties upon hundreds of American citizens, with whom they had succeeded in creating a belief that they were entitled to and could secure, under certain contingencies, vast fortunes, held in this country, being the proceeds of the estates of their ancestors, and respecting which I have on several occasions addressed the Department, seem, at last, to give promise of entire success. Certain organizations at home and their agents abroad, who by willful misrepresentations have kept this matter alive for so many years, appear now to find doing so less productive than formerly, as their dupes have been enlightened on the subject and their delusions dispelled.

It is at present a rare occurrence for letters of inquiry on this subject to be received at this consulate, but a year ago there was hardly a mail which did not bring a number of them.

It is to be hoped that such illusions may be entirely dispelled, and that no American citizens will in future waste time or money in anticipations of recovering any old Dutch claims, concerning which they have already allowed themselves to be imposed upon too long.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, February 11, 1882.

AMERICAN PRODUCTS ON THE ANTWERP MARKET IN 1881.

REPORT BY CONSUL STEUART.

The weather so far this winter has been unusually mild; there has been no obstruction to navigation on account of ice, the harbor has been open, and vessels have experienced no greater difficulty than that occurring from occasional fogs; thus the steamers have been enabled to make their regular trips, and provide the supplies demanded by the market.

From such statistics and information as I have been able to obtain, I offer the following short review upon such articles as come from the United States and occupy a prominent place on this market:

Wheat.—This is the largest and most important grain market on the continent, and furnishing as we do over 50 per cent. of the amount of wheat imported, it is very natural that the market here should be very sensitive to and governed greatly by the prices ruling in the chief markets of the United States, and not only on account of the quantity imported, but also from the preference felt for the American wheat. During the first half of the year there was no excitement, and the supply and demand being regular, the price was steady at about 26½ francs per 100 kilos, but after July the market was affected by the heavy speculations in the United States, that monopolized the stocks and raised the prices high enough to curtail exportation and cripple operations upon the market here. The price was forced as high as 32 francs here, but fell to 30 to 31 francs, at which figure it has been maintained to the present time.

The total amount of wheat imported into Antwerp during 1881 was about 640,000 tons, very nearly the same quantity as in 1880. Of this amount the United States furnished about 380,000 tons, 300,000 tons coming from the eastern ports, and 80,000 from California.

Corn and rye—The business in rye has fallen off greatly, the importation for 1881 being only about 61,000 tons, the greater part of which was in transit for Holland, but the trade in corn has grown very rapidly, and we can expect a still greater development in the demand for and use of this staple of our soil, as the Belgian distillers are increasing their consumption of it every year, and its value as an article of food for cattle is being rapidly appreciated. This rivalry on the part of corn is the chief cause in the decline of the demand for rye.

The importation of corn in 1879 was about 56,000 tons, in 1880 it had advanced to over 85,000 tons, and in 1881 to 125,000 tons, an increase of 125 per cent. in two years.

Petroleum.—The importations of and transactions in petroleum were very heavy during the year; the receipts were 238,178 barrels in excess of the preceding year, and the deliveries 136,607 barrels more than in 1881, but the market was to the disadvantage of the importers and speculators, and in favor of the purchasers and consumers, as prices declined gradually through the whole year. At the beginning of 1881 the market was quiet, and the price steady at about 25 francs, but owing to a reported increase of the daily productions in the United States the price had fallen about the end of February to 22¾ francs; in April the price had still further declined to 19½ francs, and it was at this time and figure that important contracts were made for future delivery, and purchasers laid in stocks for consumption.

The advices from the United States of the continued large productions, the quantity arriving here, and the large transactions already

made in advance, prevented any speculation or excitement upon the market, and the price gradually declined until at the close of the year it stood at 18 to 18½ francs.

The total receipts of refined petroleum for 1881 were 956,172 barrels, against 717,454 barrels in 1880, being an increase of 238,718.

Rosin.—A good business was done in rosin, especially in the quality called "good strained," as it was scarce and in good demand, and the price was well maintained.

The total receipts for the year are given at the following figures: French, 15,456 packages, against 22,311 packages in 1880, a decrease of 6,855 packages; American, 59,283 barrels, against 37,825 barrels in 1880, an increase of 21,458 barrels. The stock on hand of American rosin at the close of the year was estimated at between 7,000 and 8,000 barrels. A sale of 1,000 barrels American rosin marked G is reported at 15½ francs per 100 kilograms.

Turpentine.—A good demand prevailed for this article during the year, and owing to the decreased importation and the small stock on hand the price was well maintained. At the opening of the year the ruling price was about 21 florins, but in spring during the month of May, in the anticipation of a large production in the United States, the price fell to 18½ florins, rallied again almost immediately as the importations continued very light, and advanced to 25½ to 26 florins for 50 kilograms at the end of the year

The importations were, French, 6,543, against 8,735 barrels the previous year, and American, 14,879, against 22,674 barrels in the year 1880. Stock on hand estimated at about 500 barrels.

Lard.—Speculation ruled the market for this article during the whole year, and the fluctuations in price were such as to keep legitimate demands confined to actual needs of consumers.

The price opened in January at about 119 to 120 francs, and commenced immediately to advance, although the bears were strong on the market and resisted continuously the advance, making heavy contracts for future delivery at prices lower than those ruling upon the market. The result was a deficiency in the stock that could only be supplied from America, and as the importations were not so rapid or so heavy as the demand, the price naturally advanced until it reached in September its highest point—159 to 160 francs per 100 kilograms.

The following monthly quotations will show the fluctuations on the Bourse: January, 119 to 126; February, 127 to 132; March, 133 to 138; April, 137 to 146; May, 145 to 139; June, 137 to 134; July, 135 to 143; August, 143 to 145; September, 145 to 159; October, 158 to 149; November, 144 to 146; December, 143 to 140 francs per 100 kilograms.

The importations for 1881 were about 76,000 packages below that of 1880, as shown by the following table:

Whence imported.	Tierces.	Boxes.
New York	62,152	32,050
Philadelphia	2,379	1,560
Boston	186	498
Baltimore	250	.....
France	66	.....
England	51	64
Hamburg	1,227	.....
Holland	.....	78
Total for 1881	66,311	34,250
Total for 1880	129,468	46,679
Decrease	63,157	13,429

The stock upon the market is estimated at about 3,000 tierces.

Meat.—The importation of dry salted pork was much less in 1881 than in the preceding year. Though Belgium has all the time maintained a firm and just position in regard to this much-abused article of food, and would not condemn it or refuse its entrance into her marts, yet as this is a great distributing center, trade suffered considerably on account of the action of other governments, especially Germany and France, in their prohibitory decrees, and their efforts to banish it from their borders as an article of food.

Another serious drawback to the pork business here was the active speculation in America, which kept the price higher there than could be realized for it on this market; for cheapness is necessary for its success, and so soon as the price approaches the figure demanded for beef and other meats the consumption of pork rapidly diminishes. The importation for the year was as follows:

Whence imported.	Cases.	Barrels.
New York	79,848	3,127
Philadelphia	6,667	293
Boston	1,394	.....
Baltimore	1,827	8
France	1,581	210
Germany	116	211
England	8,156	30
Holland	56	.....
Total for 1881	99,645	3,879
Total for 1880	154,248	9,995
Decrease	54,603	6,116

The stock on hand at the end of the year was estimated at about 4,000 cases.

The price for long middle opened in January at 93 francs, and advanced gradually, with slight fluctuations, until it reached 127 francs, in October, and then declined until it reached, at the end of December, 103 francs. Short middles advanced from 97½ francs in January to 132 francs in October, and from that point declined to 107 in December.

The trade in salted and smoked hams suffered most from the French prohibition, as in the north of France they found a good market. The price opened at 140 francs, advanced to 160 francs, and closed at the end of the year at about 140 francs.

Wood.—The black-walnut of America has enjoyed a good regular demand, and generally finds buyers immediately on arrival, at prices varying from 9 to 11¼ francs, according to quality and dimensions. The receipts were 550 blocks from New York, 39 from Philadelphia, 26 from Baltimore, and 22 from Havre, being 637 blocks, against 487 imported in 1880.

In cedar, the receipts were 1,264 blocks from New York direct, and 660 from New York via Hull, the most of which was in direct transit from Germany, but there are about 500 pieces on the market here, for which 12½ francs per 50 kilograms are demanded.

We also received 19,821 pieces of ebony wood, the greater part of which was exported to England and the United States.

During the year there were thirty-four arrivals of American ships, five of them coming from foreign ports, bringing guano, and twenty-nine coming from the United States, bringing 42,000 tons of wheat and

86,000 barrels of petroleum. All the remainder of our large contribution to the imports of this port was brought in foreign bottoms.

JOHN H. STEUART.
Consul.

UNITED STATES CONSULATE,
Antwerp, January 25, 1882.

AMERICAN PORK IN FRANCE.

REPORT BY CONSUL RHODES, OF ROUEN.

I transmit herewith a slip from the Temps, of February 23, covering American pork before the Académie de Médecine, to which body the question was referred by the French Government. As will be seen, no practical solution was reached.

ALBERT RHODES,
Consul.

UNITED STATES CONSUL,
Rouen, February 24, 1882.

[Inclosure in Consul Rhodes's report. Translated in the Department of State.]

AMERICAN PORK.—Our readers have not forgotten that immediately after a communication of M. Laboulbéne to the academy, reporting a little epidemic of trichinosis caused at Crépyen-Valois, by a hog of French origin, the public was greatly disturbed. They learned at the same time that trichina had been found by the inspectors of butchery in American lard at Paris, Lyons, Montpellier, &c. The government instantly took a radical measure; there was issued an immediate prohibition of the introduction of American lard into France. They promised to retract the prohibition as soon as they could find a practical means of distinguishing the contaminated meats from those which were not. The academy, on being consulted, had previously given an opinion conformable to the measure taken by the government. However, the discussion had shown that several members of the company were not in favor of the prohibition; some deemed a thorough cooking sufficient to render the trichina lard inoffensive. Others thought that a thorough inspection upon its arrival would give satisfaction to all interested.

Several weeks ago our brother member, M. Decaisne, in the name of the hygiene, better understood, in the name of the laboring classes deprived of cheap and nourishing food, in the name of commerce and of industry sacrificed to chimerical fears, demanded that the prohibitive measures should be reported.

A delegation, composed of MM. Bouley, Chatin, and Proust, was named to examine the reso ution of M. Decaisne. The minister of commerce presses the academy to make known to him its sentiments on the questions which M. Decaisne arouses.

M. Chatin, reporter of the delegation, after having brought to mind the actions above mentioned, enumerates, classes, and discusses the arguments of the adversaries of the prohibition. These ultimately affirm: 1st. That they could not, without a grave reason, which would here be faulty, deprive the people of such important and cheap food. 2d. That the salt, carefully prepared, destroys the trichina. 3d. That the micrographic examination of the imported meats would entail tardiness and innumerable difficulties to commerce, which would be equivalent to the prohibition in a disguised manner.

In the eyes of M. Chatin these arguments are not well founded. "It is to show," says he, "a singular solicitude for the interests of the laboring classes to wish to furnish them with unwholesome food in the pretext that it is cheap." The efficacy of the salt for the destruction of trichina is contested or denied by well-authorized observers, among others M. Colin d'Alfort. It is demonstrated that salt meats for some time past have preserved live trichina. Moreover, the quality of salt varies. They have found live trichina in hams of which the interior temperature had been brought up to 118°. It is not impossible to organize in France a service of micrographic inspection capable of sufficiently examining the imports.

M. Chatin, reasoning on the works and the essays of the delegation who had worked at Havre during several months of the previous year, affirms that he would not be above the means recognized as practical of establishing in this port a service of inspection offering to guarantee all. Havre receives annually 112,000 cases; for three hundred days of work, that gives 373 cases per day to examine; one inspector can visit 10 cases; let us apportion to him only 5. Seventy persons will suffice to do the work well.

The 50,000,000 kilograms of American pork annually imported by us do not intimidate M. Chatin. A hundred micrographs, two hundred at most, will serve to make a proper examination.

In Germany 17,000 persons, they say, are employed in this examination. In that country it is not only against indigenous trichinosis that we must protect oneself.

Conclusion: At present there is but one measure capable of conciliating the interest of the public hygiene and of commerce; it is the micrograpic inspection.

It seems that three members of the commission have different opinions on the question.

M. Proust has recommended the examination of suspected meats, but he has not heard of the establishment of a system applicable to the great imports at Havre, however. For the rest, despite the prohibition, for the last four years we have consumed American lard received by the northern frontier, and we still consume as much as ever. Have they found one single case of trichina? No. The accident at Crespy is due to a "compatriot hog" [laughter]. Our culinary customs are efficacious safeguards to us. Let us eat American lard; only do not neglect to cook it a long time.

M. Bouley participates in this view of the subject, and believes that trichinosis causes so many accidents in Germany only on account of the imperfect cooking of the meat. The inspection would be, without any doubt, a guarantee incomplete withall; it is not necessary.

M. Camille Leblanc, inspector-general of the sanitary services of Paris, attests that the prohibition has been without effect; the American lards were going to take divers forms in England, and come to us by the north. We would require 7,000 or 8,000 inspectors to organize a good service.

M. Rochard, who was one of the Havre delegation, has been able to satisfy himself that the inspection was altogether insufficient for the wants of commerce.

M. Legouest admits that prolonged cooking destroys trichina, and believes that (thanks to that cooking) the American lard may be consumed by our troops. Still, he has a scruple; is it certain that the trichina meat, in which they have succeeded in killing the parasite, is as wholesome as the meat without trichina?

M. Bouley would not wish to affirm that the two meats are of equal value; however, it seems established that the albuminous substance of the dead trichina digests itself without inconvenience.

M. Bouchardat is convinced that the immunity of French pork is due to the isolation of the animals raised by the cultivators. In America, where the raising gives place to great enterprises and an enormous concentration of animals, the trichina finds these conditions very favorable to its propagation. Better instructed, the Americans would practice the isolated raising. (A sarcastic voice:) Depend upon it!

M. Fauvel proves the absence of MM. Davaine and Colin d'Alfort, whose opinions would be precious on this occasion. Resolved: The report to be printed and the discussion to be adjourned.

Finally, according to the proposition of M. Guerin, considering that the report does not reply in its conclusions to the question of the minister, the academy votes sending back to the delegation. Consequently, the reporter must return with a new work, declaring his views on the subject of what conditions the introduction and the consummation of American pork can be permitted in France without peril to the health of the public.

AMERICAN SECURITIES IN HOLLAND.

REPORT BY CONSUL ECKSTEIN, OF AMSTERDAM.

It may be observed, from what is stated in my report of January 31, 1881, on same subject, that United States bonds bearing less than 4 per cent. interest would not be likely to induce Dutch capitalists to invest therein.

In my estimate of this matter I have been fully sustained for transactions in such securities in this market have almost ceased, since the conversion of the 5 and 6 per cent. bonds has been accomplished.

The amount of capital still invested in Holland in United States bonds is but very insignificant. There remain at this time in the hands of a few capitalists some 4½ and possibly some 4 per cent. bonds, and such only to a very limited amount.

So long as the financial and political condition of this country remains as satisfactory as at present, and in land securities government and others yield a better interest, capitalists and the people generally prefer to invest in them, rather than in the securities of any foreign country or in foreign enterprises.

RAILROAD SECURITIES.

At the beginning of the year 1881, and before, firmly established confidence prevailed here, as well on the part of all classes of inventors as speculators, in the further development of American railroad interests and in the best of prospects for their profitable operation.

Together with this went the strong and widespread belief that no investment offered equally remunerative interest with as little comparative risk as American railroad bonds, and as to American railroad stocks or shares, it was the same as to anticipate great dividends and rise in their values.

During the greater part of the year 1881 nothing occurred which in the least disturbed either the people's confidence, belief, or expectations in the matter.

But this so favorable and satisfactory state of things was not to last, but became materially changed, as a break in the prices of certain shares occurred early in the latter half of the year, and ere its close this break, and probably other causes combined, brought about a considerable decline in the prices of other shares, and as well in the prices of bonds of many descriptions.

From January 1 up to the present time matters have become only worse, and are here looked upon as portending more than a merely passing fluctuation of the market, but rather as the beginning of a period of settled or fixed reaction.

In my last report on this subject I took occasion to remark that colossal profits were received by the people of Holland from their transactions in American railroad securities in 1880, and regret to be induced to believe that a large proportion of those gains they lost again in 1881, or at least until up to the present.

Of new issues of bonds introduced and placed here in 1881 were the following, viz: $6,500,000 six per cent. Chicago and Atlantic first-mortgage bonds, payment of interest guaranteed by traffic agreement with the connecting New York, Pennsylvania, and Ohio, and New York, Lake Erie, and Western Railroad Companies; $3,000,000 three per cent. Louisville and Nashville Railroad Company, second mortgage; $10,000,000 six per cent. Atlantic and Pacific Railroad Company, first mortgage; $2,000,000 six per cent. Louisville and Nashville Railroad Company, sinking-fund bonds; $600,000 six per cent. Des Moines and Fort Dodge Railroad Company, first mortgage.

Although dealings were very lively in these newly placed securities, it became a matter of difficulty, if not of impossibility, to bring out and place in this market the bonds of any new loans during the latter part of the year, as the public had become entirely too apprehensive and the market generally too sensitive.

Speculators took a lively interest in American railroad shares, and the increase of holdings in such shares it is said may be estimated at

over $10,000,000. The estimated total amount of such shares in the hands of Dutch holders is said to be from $40,000,000 to $50,000,000. The amount of the United States railroad bonds held in Holland is very large, but, as represented to me, it is impossible to make even an approximately correct estimate thereof. State bonds and stocks and bonds of municipal corporations are also held in this country to a large extent.

Gold movements.—The demand for gold caused by the declining rates of exchange on London in New York and the introduction of the gold standard in Italy, which arose in August and continued up to about the middle of October, was met to a certain extent by shipments from Holland, but more particularly during the latter part of that period.

The store of available bullion in the Bank of the Netherlands, said to have amounted to 10,000,000 florins at the beginning of August, slowly and steadily decreased and became totally absorbed by the end of September, so that further and subsequent demands had to be met by parting with considerable amounts of coined gold held by that bank.

A temporary cessation of gold shipments occurred about the latter part of October in consequence of an improvement in the rates of exchange at New York, but they were resumed early in November, so that the amount of Dutch gold coin held by the Bank of the Netherlands, which at the beginning of August was 41,000,000 florins, was reduced to about 18,000,000 florins at the end of the year.

A large proportion of the gold both in bullion and coin withdrawn from this bank during 1881 found its way to the United States either directly or indirectly.

The tabular statements accompanying this report, as well as required information to enable me to prepare the same, have been kindly furnished to me by Messrs. W. F. Pick & Co., bankers of this city.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, March 18, 1882.

Highest and lowest prices of United States railroad bonds at Amsterdam during 1881.

Description.	Per cent.	Lowest.	Highest.
Atchison, Topeka and Santa Fé, first	7	116	119
Atlantic and Pacific, first	6	97⅜	104
Cairo, Saint Louis (committee certificate), first	7	73⅛	97
Central Pacific, California, Oregon, first	6	112	116
Central Pacific, California, Oregon, B	6	102½	110
Central Pacific, San Joaquin, first	6	103⅜	107½
California Pacific (guaranteed by Central Pacific), second	6	104⅜	111½
Chesapeake and Ohio, series B	6	104	110⅜
Chicago and Atlantic, first		81½	90
Chicago Grand Trunk, income bonds	6	98⅜	101⅜
Chicago and Northwest:			
Consol, gold		65½	91½
Iowa Midland	7	119	124½
Madison Extension	8	118½	130
Menomonee Extension	7	117⅜	125½
Union	7	117⅜	125½
Chicago and Southwest (guaranteed by Chicago and Rock Island)	7	115½	123⅜
Cleveland, Mount Vernon and Delaware (committee certificate)	7	119¾	124
Denver and Rio Grande	7	83	95½
Denver and Rio Grande, consol	7	110	119½
Des Moines and Fort Dodge	7	101	117½
Missouri, Kansas and Texas:	6	103	108
Consols, redeemable, 1904-'06	7	103	109½
Income bonds		65⅜	89⅜
Union Pacific, Southern branch	6	104½	112

Highest and lowest prices of United States railroad bonds—Continued.

Description.	Per cent.	Lowest.	Highest.
New York, Pennsylvania and Ohio (prior lien bonds)	6	100⅜	109¼
Louisville and Nashville (Saint Louis division)	6	104½	112
Saint Louis and San Francisco	6	105	109
Saint Louis and San Francisco, South Pacific of Missouri	6	102⅛	108¼
Saint Paul, Minneapolis and Manitoba, first	7	107	113
Saint Paul, Minneapolis and Manitoba, second	6	102	107½
Saint Paul, Minneapolis, and Dakota Extension, second	6	104	107½
South Pacific, California	6	101 1/16	105¼
Union Pacific	6	112	116⅛
Union Pacific, Kansas Pacific	6	105½	114
Union Pacific, collateral trust	6	105⅛	*109½
Wabash, Toledo, Peoria and Western, incomes	.....	66	97½
Winona and Saint Peter (guaranteed by Chicago and Northwestern)	7	107½	124½

Highest and lowest prices of United States railroad shares at Amsterdam during 1881.

Description.	Lowest.	Highest.
Buffalo, Pittsburgh and Western	38⅜	46½
Canada Southern	51	88½
Central Pacific	85⅜	102⅜
Chicago, Burlington and Quincy	136	172
Chicago, Milwaukee, Saint Paul, preferred	122	125½
Chicago, Milwaukee, Saint Paul, common	107⅛	110⅜
Chicago and Northwestern preferred	133	146½
Chicago and Northwestern common	123½	123½
Chicago, Rock Island and Pacific	130½	145½
Chicago, Saint Louis and New Orleans	75½	88
Cleveland, Columbus, Cincinnati and Indianapolis	83⅜	99½
Denver and Rio Grande	68½	87½
Illinois Central	126	144½
Louisville and Nashville	93½	109
Michigan Central	84	132
Missouri, Kansas and Texas	40	49½
New York, Lake Erie and Western	40	52½
New York, Ontario and Western	26	39½
Pittsburgh, Fort Wayne and Chicago	122½	134
Saint Louis and San Francisco, first preferred	94	111½
Saint Louis and San Francisco, preferred	53	82
Saint Louis and San Francisco, common	37½	53½
Union Pacific	126⅜	128
Wabash, Saint Louis and Pacific preferred	66½	99½

Rates of exchange at Amsterdam in 1881.

Months.	Paris, per 100 francs.		Hamburg, per 100 reichsmark.		London, per pound sterling.	
	At sight.	Three months.	At sight.	Three months.	At sight.	Three months.
	Florins.	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*
January:						
Lowest	47.75	47.35	59.10	58.65	12.07	12.01
Highest	47.80	47.40	59.15	58.70	12.11	12.03
February:						
Lowest	47.80	47.40	59	58.60	12.10	12.04
Highest	47.90		59.10	58.75	12.15	12.07
March:						
Lowest	47.75	47.40	58.90	58.70	12.13	12.06
Highest	47.95	47.50	59.15	58.80	12.14½	12.07
April:						
Lowest	47.75	47.40	58.95	58.50	12.10½	12.04
Highest	47.90	47.50	59.10	58.70	12.12½	12.05
May:						
Lowest	47.70	47.30	58.65	58.30	12.04	11.99
Highest	47.85	47.40	58.85	58.40	12.09½	12.03
June:						
Lowest	47.80	47.35	58.65	58.30	12.04	11.99
Highest	47.90	47.45	58.90	58.45	12.10½	12.05

Rates of exchange at Amsterdam in 1881—Continued.

Months.	Paris, per 100 francs.		Hamburg, per 100 reichsmark.		London, per pound sterling.	
	At sight.	Three months.	At sight.	Three months.	At sight.	Three months.
	Florins.	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*
July:						
Lowest	47.80	47.40	58.70	58.35	12.08	12.03
Highest	47.90	47.45	58.95	58.40	12.10	12.04
August:						
Lowest	47.92	47.40	58.75	58.40	12.07½	12.03
Highest	48.05	47.60	59.10	58.60	12.14½	12.10½
September:						
Lowest	47.75	47.40	59.05	58.10	12.11	12.04
Highest	48	47.55	59.30	58.60	12.15½	12.06
October:						
Lowest	47.70	47.25	59.10	58.45	12.11	11.98
Highest	47.90	47.40	59.35	58.50	12.14	12.05
November:						
Lowest	47.95	47.25	59.05	58.40	12.09	11.98
Highest	48.05	47.35	59.25	58.45	12.11½	12.03
December:						
Lowest	47.80	47.30	59.10	58.45	12.07½	11 95
Highest	48.05	47.35	59.30		12.10	12.01

Highest and lowest quotations of United States bonds in Amsterdam, for 1881.

Description.	Lowest.	Highest.
United States 4 per cents, 1877	114⅛	118
United States 4½ per cents, 1876	100⅝	114
United States 5 per cents, 1871	99	103¼
United States 6 per cents, 1864	98⅛	100½

AMERICAN TRADE WITH SAN DOMINGO.

REPORT BY CONSUL JONES.

I have the honor to transmit herewith returns of trade, commerce, and navigation at the port of San Domingo for the quarter ending December 31, 1881.

The imports amount to $368,416.25; for the same period in 1880, $189,671.80; showing an increase of $178,744.45.

Of the imports the United States furnished, exclusive of machinery and building materials designed for sugar plantations, which all came from there, but which does not appear in the footings, as no duties are charged upon them and no record kept at the custom-house, the sum of $268,714, an increase over the same period in 1880 of $169,619.70; this increase being almost exclusively of the two items of provisions and dry goods.

Of the imports for the quarter ending December 31, 1880, the United States contributed the sum of $99,094.30; for the corresponding quarter of 1881, $268,714; making the handsome increase of $169,619.70.

The exports for the quarter ending December 31, 1880, were $112,401.87; for the quarter ending December 31, 1881, $158,721.02; showing an increase of $46,319.15.

The exports to the United States for the quarter ending December 31, 1880, were $68,369.67; for the corresponding quarter of 1881, $43,913.77,

being a decrease of $24,455.90, which consisted principally of sugar and molasses. Owing to the unusually late wet weather, the cane was not in condition to grind much before the second week in January, whereas ordinarily grinding commences during the first half of December. However, the great amount of rainfall will cause the yield per acre to double that of last year, as in that year the crop suffered severely from drought.

I regret that I am compelled to make such a meager exhibit of American tonnage arriving at this port. The total arrivals of all nations being sixteen steamers, with a tonnage of 16,860 tons, and twenty-two sail vessels, with a tonnage of 5,632 tons; total, 22,492 tons; of which were American, three steamers with tonnage of 4,926 tons and six sail vessels with tonnage of 1,278 tons, a total of 6,204 tons.

Very little progress is being made on this portion of the island outside of the sugar interest. The production of coffee and cacao, which at one time bid fair to assume large proportions, seems to have been neglected of late, as the receipts give no evidence of increase.

The financial condition of the country is by no means in a flourishing condition, the circulating medium consisting entirely of the depreciated coin of Mexico and South America, which has entirely driven out the currency of the United States, which but a few years since constituted the principal circulating medium. The result has caused exchange on New York to rule at 10 per cent. premium for the past four or five months, and, as by a decree of the executive the poorer currency is made a legal tender at par, I can see no immediate prospect of improvement, inasmuch as the country yearly imports largely in excess of its exports. As trade with the United States continues to show a healthy increase, I have no suggestions to offer as to the means of increasing it.

PAUL JONES,
Consul.

UNITED STATES CONSULATE,
San Domingo, January 10, 1882.

DECREASE OF AMERICAN SHIPPING IN INDIA.

REPORT BY CONSUL-GENERAL MATTSON, OF CALCUTTA.

The old American residents in India speak with patriotic enthusiasm of the proud old days when the stars and stripes were seen at the masthead of one-half the ships in this great seaport, when the officers and seamen of the American merchant marine held a leading position among the nations, and their ships not only interchanged the produce and manufactures of America and India, but carried the freight of Asia to nearly all the great markets of the world. But now our flag is rarely seen in the crowded harbor of Calcutta, and the gallant American seaman turns up only as an occasional survivor of a past generation.

Under these circumstances it will be readily understood how welcome have been the late news that the question of American mercantile marine has attracted the attention of the people and the government at home.

Hoping that it may add a little more light upon this subject, I have prepared from the records in this office the following table, showing the

gradual decrease of the American shipping at this port for the last twenty-five years:

Year.	Number of vessels.	Total tonnage.	Year.	Number of vessels.	Total tonnage.
1857	167	187, 382	1870	40	43, 954
1858	143	119, 435	1871	34	34, 017
1859	120	106, 097	1872	53	61, 310
1860	110	103, 609	1873	39	41, 532
1861	143	124, 924	1874	28	28, 997
1862	109	98, 490	1875	34	40, 049
1863	106	91, 344	1876	30	33, 151
1864	60	50, 685	1877	42	50, 898
1865	38	35, 210	1878	25	31, 091
1866	45	41, 316	1879	18	24, 481
1867	36	35, 424	1880	23	28, 816
1868	58	55, 458	1881	16	19, 945
1869	41	41, 751			

During the same period the shipping of other leading commercial nations have steadily increased. For example, British vessels in 1859–'60 were 2,585, with a tonnage of 1,158,790, and in 1880–'81, 3,629 vessels of 2,826,908 tons.

Nationality.	1859–'60.		1880–'81.	
	Number of vessels.	Tonnage.	Number of vessels.	Tonnage.
German	68	26, 544	61	56, 788
Italian	9	3, 732	62	65, 267
Norwegian	2	748	27	23, 703

The trade between America and India is steadily increasing (strange enough) in nearly the same ratio that the American shipping is decreasing, as will be seen by the following table of imports and exports to and from India for the last five years:

Years.	Value of imports.	Value of exports.
1876–'77	$698, 481	$7, 569, 343
1877–'78	1, 118, 868	7, 721, 359
1878–'79	1, 395, 291	8, 147, 038
1879–'80	2, 105, 047	13, 023, 036
1880–'81	1, 963, 392	10, 422, 764

These simple figures speak for themselves with much greater force than any comments which I might make.

H. MATTSON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Calcutta, February 6, 1882.

EFFECTS IN EUROPE OF GRAIN SPECULATION IN THE UNITED STATES.

REPORT BY COMMERCIAL AGENT SMITH, OF MAYENCE, GERMANY.

I have the honor to transmit herewith the following item of commercial intelligence, which I have translated from the Rheinische Kurier of this morning:

THE GRAIN TRADE.

In whatever direction one may turn in taking a retrospective view of the course of business of the last week, he hears only of weak transactions. New York, which

once again lately has had the pleasure of forcing prices, does not appear to have felt very comfortably in its elevation, for day by day has it driven the course of the market down until at the end of the week it closed at $1.39. All, however, will not be caught in the application of the tricks employed, for Europe is turning to Southern Russia and to Asia for its supplies, and the offer there is so large that it has been with difficulty that the prices which have prevailed have been and are maintained. The supply, also, in our own land is in general still quite abundant and contributes to the prevention of an upward movement. To what state the exports have sunk at New York may be shown by the fact that the freight has gone down 3¾ cents per bushel, a point which has not been reached for a long while. The slight demand which exists among the millers eases their position still further, for they are in no hurry to meet wants and take in stock, while, on the other hand, the stock of grain at the chief commercial places is continually increasing.

Marseilles has already made such favorable offers that East Switzerland, which usually does not depend upon its market, may find it advantageous to now do so. The shipments to England of grain and flour are considerably higher than at the same time last year, and there are always lying in South Russia large quantities of grain for export.

What is said respecting wheat does not any the less affect rye also. Holland has lately received large quantities of this article from the Black Sea, which, in part, has been placed in stock. The product from the country, which has usually been used in large quantities for the manufacture of brandy, is, on account of the magnificent potato crop, exclusively held by flour manufacturers, while those classes of people which are mostly the chief consumers of rye bread, in potatoes find a cheaper article of food.*

Under these circumstances, it is easily seen that the price of rye could not be longer maintained, and a fall is to be noted, which also embraced rye flour. The flour trade was, as already indicated, very dragging, for nobody will enter into transactions which extend beyond immediate needs, as there is very little confidence in the present state of prices. The price of barley was weak, although with us the offer is not particularly strong, the better qualities, no doubt, having passed from the producers, Hamburg and England note lower prices. There will doubtless be no deficiency during the summer months in the chief staples, and buyers should therefore be prudent.

It would thus appear that the speculative schemes of New York brokers have diverted European attention from our own markets to those of Russia and Asia.

JAS. HENRY SMITH,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Mayence, February 16, 1882.

IMPORTS AT MAYENCE FROM THE UNITED STATES.

REPORT BY CONSUL SMITH, OF MAYENCE, GERMANY.

Under Article XXVII of the Consular Regulations, I am required to forward to the Department of State, as soon as practicable after the close of a calendar year, a statement of the articles imported during the year at this port from the United States.

With a view to complying with the instructions on this subject, I have had application made to the chamber of commerce of Mayence and the custom-house here for the requisite statistics, but I have been informed that I cannot be supplied therewith just now.

From what I can learn, the imports at this place from the United States are probably insignificant. Mayence being an interior port of entry, far inland, the major part of the few things from the United

* What is meant here, I think, is that large quantities of rye are used by brandy manufacturers, and that, this year, that portion which is usually converted by the millers into flour is lying upon their hands in consequence of the abundance of potatoes, which the poorer classes are using instead of rye bread.—CONSUL.

States which do enter into its trade are very likely received second-hand from large importing houses at seaport towns.

I have also to remark that there is but one American engaged in business in Mayence, who is interested in the manufacture of machinery, and not in the importation of goods. His house, he informs me, used to import many agricultural implements and much hardware, but that they have abandoned that branch of business as unprofitable.

From his statements it would appear that so soon as an American invention of excellence makes its appearance in the German Empire, it proves to be too expensive for general introduction, and, unless simultaneously patented here, is ultimately forced out of the market by a German imitation of inferior quality and lower price. In this way it becomes impossible for our superior productions to obtain a foothold, and our manufactures are damaged in character by these poor and cheap caricatures of German origin.

JAS. HENRY SMITH,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Mayence, February 1, 1882.

AUSTRIAN EXPORTS TO THE UNITED STATES.

REPORT BY CONSUL-GENERAL WEAVER, OF VIENNA.

I beg to inclose herewith ten copies of the annual digest of invoice books of the consular districts in Austria-Hungary, which shows that the value of the authenticated invoices of goods shipped from Austria-Hungary to the United States during the year 1881 was $7,501,660.97, being an increase of nearly 7 per centum when compared with 1880. The leading articles during the year were dried fruits, glassware, and buttons, amounting respectively to 20, 19½, and 13 per cent. of the whole.

The subjoined table presents in a succinct form the amounts and changes of the principal articles during the last three years:

Articles.	1881.	1880.	1879.
Fruits, dried	$1,494,619	$1,089,346	$1,090,506
Glassware	1,465,254	1,406,279	599,580
Buttons	967,305	1,088,724	1,071,907
Linen and cotton goods	480,327	472,295	277,503
Drugs and chemicals	453,790	249,911	221,233
Fancy articles	379,015	282,248	175,078
Cloth and woolen goods	289,331	219,972	173,404
Leather and skins	253,514	255,983	192,168
Pipes and fixtures	253,414	178,320	104,404
Gum	233,160	211,766	267,988
Porcelain and pottery	159,478	36,677	18,393
Musical instruments	101,851	112,553	65,648
Gloves	83,393	92,822	126,475
Silks and velvets	83,158	108,461	19,385
Iron and steel	46,700	552,566	28,856
All others	757,361	750,907	432,528
Total	7,501,661	7,108,830	4,896,588

JAMES RILEY WEAVER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Vienna, January 23, 1882.

[Inclosure in Consul-General Weaver's report.]

Statement showing the value of declared exports from the consular districts of Austria-Hungary (agencies included) to the United States of America during the year ending December 31, 1881:

Articles.	Budapesth.	Prague.	Trieste.	Vienna.	Total.
Bed feathers		$13,289 28			$13,289 28
Books		6,228 23		$352 47	6,580 70
Buttons		76,515 95		890,788 93	967,304 88
Cloth and woollen goods		100,283 56		189 047 35	289,330 91
Dress goods and shawls				10,095 54	10,095 54
Drugs and chemicals	$2,496 75	12,390 81	$64,580 51	278,227 80	357,704 84
Fancy goods and jewelry		24,261 29		354,753 98	379,015 27
Fruits, dried	348,865 47	5,469 70	1,105,319 54	34,955 33	1,494,610 04
Furniture		2,915 82		33,352 25	36,267 57
Glassware	200 35	1,460,039 22		5,014 08	1,465,253 64
Gloves		5,415 62		78,077 50	83 393 12
Gum			233,159 70		233,159 70
Hair, human		18,673 39			18,673 39
Hops		28,216 85			28,216 85
Iron and steel				46,699 75	46,699 75
Insect powder			96,084 89		96,084 89
Leather, skins, and furs		54,779 69	19,949 42	178,784 53	253,513 64
Lentils				26,533 20	26,533 20
Linen and cotton goods		21,456 23		458,781 26	480,327 49
Machinery				4,978 42	4,978 42
Mineral waters	49,297 65	12,315 10			61,522 75
Musical instruments		4,314 98		97,536 31	101,851 29
Oils			49,913 76		49,913 76
Pipes and pipe-fixtures				253,414 18	253,414 18
Porcelain and pottery		149,855 96		9,621 73	159,477 69
Rags			1,755 33		1,755 33
Seeds			77,845 52		77,845 52
Silks and velvets				83,157 53	83,157 53
Sponges			33,228 77		33,228 77
Toys and chipped goods		24,665 18			24,665 18
Wine, beer, and liquor	14,738 33	51,585 79		12,150 06	78,474 18
Wool			69,545 00		69,545 00
Miscellaneous	163 87	6,328 84	188,273 28	21,000 64	215,766 63
Total in 1881	415,672 42	2,079,009 99	1,939,655 72	3,067,922 84	7,501,660 97
Total in 1880	149,204 17	1,768,509 61	2,202,988 44	2,988,147 91	7,108,830 13
Total in 1879	344 335 49	825,103 60	1,522,263 79	2,204,864 73	4,896,587 61

AMERICAN DUTIES AND CANADIAN EXPORTS.

REPORT BY CONSUL BLODGETT, OF PRESCOTT.

I notice by the press that there may be a modification in the tariff on hay. Will it be in order for a consul placed where a large amount of this article is exported to say a word on this subject?

There is hardly an exportation the real value of which is more variable, and none where it is more difficult to arrive at this value, owing to different qualities and prices in different localities.

If a change is to be made, I would suggest a specific duty as better for the government and exporter. I believe better faith is kept with the government in exporting merchandise carrying a specific duty than ad valorem.

While on this subject of specific duties, I would like to say a word about hop-poles, railroad ties, telegraph poles, fence posts, eggs, and iron ore. I am told that exporters of hop-poles are protesting against the present duty, but they purchase with their eyes open, and every dollar they may recover from the government is so much put in their pockets in profits.

Another thing is as certain—the moment the tariff is taken off hop-poles, that moment they go up in price here just the amount of the present duty. It is so with all exportations. Butter pays 4 cents per pound duty. It is 5½ to 6 cents less in price here than in American

towns on the frontier. Potatoes pay 15 cents per bushel duty. They are 18 to 22 cents per bushel lower here than on the frontier across the Saint Lawrence.

Railroad ties are clearly a manufactured article, finished on both sides and in length for immediate use, yet they go into the United States free, as do also telegraph poles and cedar and other fence posts.

Iron ore pays a duty of 20 per centum, but up to last year was entered at all sorts of prices. The shipments will be large the coming season.

Eggs enter largely into the exports of this consulate. During the year ending June 30, 1881, the declared export of eggs from this consulate amounted to $230,000.* Taking in the amount exported in lots of less than $100 in value, would bring the amount for the year over $300,000. A duty of one cent per dozen on eggs imported into the customs districts of Oswegatchie and Champlain, N. Y., and the district of Vermont, would pay the entire expenses of those collection districts, and this without increasing the value or price of eggs to the consumer in the United States.

I have looked this matter over carefully, and give suggestions as they have occurred to me for specific duties on the following articles:

Hay (if the tariff is changed), $1 per ton of 2,000 pounds.
Straw (now free), $1 per ton of 2,000 pounds.
Railroad ties (now free), 4 cents each.
Telegraph poles (now free), 6 cents each.
Hop poles (now 20 per cent), one-half cent each.
Fence posts (now free), 2 cents each.
Eggs (now free), 1 cent per dozen.
Iron ore, 80 cents per ton of 2,240 pounds.

I take it to be one of the prime duties of a consul to become conversant with these matters, and lay them before his government, and I feel more willing to this from the fact that the Government of the Dominion loses no opportunity of discriminating sharply against us, and taxing our goods at every turn, and I feel sure that for the reasons stated in regard to butter and potatoes, the consumer in America would not find the price of any of the exportations increased appreciably.

SANFORD S. BLODGETT,
Consul.

UNITED STATES CONSULATE,
Prescott, March 15, 1882.

CHANGES IN THE CANADIAN TARIFF.

REPORT BY COMMERCIAL AGENT CARROLL, OF PORT STANLEY.

I have the honor to inclose herein a list of the changes made in the Canadian tariff by the Dominion Government. This list I take from the Toronto Mail of the 25th instant. It is authentic, the collector of customs at this place having, as he informs me, received telegraphic instructions from Ottawa on Saturday to that effect, and directing that he should be governed accordingly.

PHILIP CARROLL,
Commercial Agent.

COMMERCIAL AGENCY OF THE UNITED STATES,
Port Stanley and Saint Thomas, Canada, February 28, 1882.

* The imports of eggs into the United States for the Dominion of Canada during the year ending June 30, 1881, were as follows: 7,571,341 dozen, valued at $1,200,000.

[Inclosure in the foregoing report.]

THE TARIFF—CHANGES IN THE TARIFF PROPOSED BY THE GOVERNMENT—LIST OF ARTICLES ADDED TO THE FREE LIST—NATIVE INDUSTRIES TO BE STILL FURTHER ENCOURAGED—DUTY TAKEN OFF TEA AND COFFEE.

[From the Toronto Mail of February 25, 1882.]

OTTAWA, *February* 24.

The following are the changes proposed in the tariff:

TO BE ADDED TO THE FREE LIST.

Anatomical preparations.
Bees, brass in sheets, Britannia metal, in pigs and bars.
Celluloid in sheets, China clay, chloralum, coffee, green, except by act 42 Vic. cap. 15.
Fowls for improvement of stock.
Iron, sand or globules, and dry putty for polishing granite.
Quinine, quicksilver.
Spelter in blocks and pigs.
Tea, except as provided for in act 42 Vic., cap. 15.
Tin in blocks, pigs, bars, and sheets.
Woods, African teak, black-heart ebony, lignum vitæ, red cedars, satin wood.

DUTIES TO BE CHANGED.

Bookbinders' tools and implements, including ruling-machines and binders' cloth, from 10 to 15 per cent.
Glass, common and colorless, window-glass, 20 to 30 per cent.
Scrap-iron, now $2 per ton, to $1.
Lead, manufactures, from 25 to 30 per cent.
Sandpaper from 20 to 25 per cent.
Ships' hulls when containing machinery to remain at 10 per cent., but the machinery to pay 25 per cent.
Bags containing fine salt, 25 per cent.
Clock springs, now 35, reduced to 10 per cent.
Cotton-seed, now 20 per cent., reduced to 10 per cent. per bushel.
Fireworks, 25 per cent. *ad valorem.*
Wrought-iron tubing, 1¼ inch and upward, 15 per cent.; it now pays 25 between 1¼ and 2 inches.
Mustard cake, 20 per cent.; uncertain now.
Paraffine, wax, or stearine, 3 cents per pound.
Rice, unhulled, or paddy, 17½ per cent.
Trees, apple, 2½ cents; pear, 4 cents; plum, 5 cents; cherry, 4 cents; quince, 2½ cents; grape vines, 4 cents.
Silk plush, or netting for gloves, 15 per cent.
Harness and leather dressing is placed under the head of blacking at 25 per cent.
Belts and trusses under the heading of braces or suspenders.
Kentucky jeans to pay cotton duty, as they are cotton.
Knitted cotton cloth to pay 30 per cent.; black and bleached cotton, three and six cords only, to be admitted at 12½ per cent. duty.
Furs the same, whether wholly or partially dressed.
Bolsters and pillows to pay the same duty as mattresses.
Glass, pressed or molded, tableware, to be added to the 30 per cent. list.
Corsets, tarpaulin coated with oil, paint, or tar, cotton bags made up by the use of the needle, 30 per cent.
Paints, orange mineral reduced to 5 per cent., being the same article as white lead.
Lacquers, Japan and collodes are added to the list of varnish.
Spirits and strong waters mixed, now paying $1.90, 20 per cent. is to be added.

TRADE BETWEEN MESSINA AND THE UNITED STATES.

REPORT BY CONSUL OWEN.

I have the honor to inclose for your consideration the returns of this consulate for the fourth quarter of the past year.

I have also to report that the exportation of green fruit to the United

States during the first portions of the quarter was less in amount than might be expected, owing to a lack of steamers and an entire want of sailing vessels. The last month, however, the shipments increased, and at present the trade promises to exceed that of former years.

The importations have been confined to one cargo of petroleum and a small invoice of canned goods; the latter met with a ready sale, and I see no reason why the shipments should not increase. The principal objection merchants have urged against the importations of our products, aside from the high duty the Italian Government imposes, has been the great freight charges. This difficulty I now think is obviated by the establishment of two new lines of steamers with regular sailings from New York. The competition that must arise will have a tendency to lower rates and thereby diminish the cost of the articles. If proper exertion were made and pains taken to see that the goods were of the best quality and well packed, I have no doubt that a trade might be built up, which, although it could never assume great proportions, still would be profitable to all concerned. Our canned goods, starch, lard, and cheese are favorably known, and but little inducement is needed to sell them. It will give me great pleasure to aid merchants in the furtherance of this commerce, and any information or help I can give them will be given cheerfully and in season.

GEO. H. OWEN,
Consul.

UNITED STATES CONSULATE,
Messina, January 18, 1882.

BRITISH AND AMERICAN SHIPPING.

REPORT BY CONSUL CANISIUS, OF GEESTEMUNDE, GERMANY.

I have gone over the two volumes of the Commercial Relations published by the Department of State for the year 1879, in order to ascertain the comparative extent of the United States and British shipping to all the ports of the world. The result I have tried to bring into a convenient statistical form, which I inclose. Although it may not be absolutely correct or complete, for the reports of a number of consuls gave no statistics of the shipping trade in their respective districts, still, I may say that the inclosed extracts from all consular reports referring to shipping will give a pretty clear idea of the huge shipping interest of Great Britain, in comparison with which our own has dwindled to an insignificant degree.

The German and English merchant navy is being converted, more and more, from sailing vessels into steamers, and if our people make no effort to do the same, there will not be much of the already small carrying trade left to them. No wooden vessels will ever be built in Europe for Americans, but *iron* steamers may, if her ship-yards cannot furnish them at as low a rate as the Greenock or Castle yards.

THEODORE CANISIUS,
Consul.

UNITED STATES CONSULATE,
Geestemunde, February 10, 1882.

A comparison of the British and American shipping at most of the principal ports of the world.

[Collected from Consular Reports for the year 1879, by Consul Theodore Canisius.]

Ports (arrived at).	British vessels.				American vessels.			
	Steam.		Sail.		Steam.		Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Acajutla					67	93, 801		
Acapulco			1	802	64	137, 783	6	8, 620
Alexandretta	88	45, 276						
Alexandria	625	?	465	?				
Amoy	458	300, 665	80	24, 128	3	1, 497	9	4, 166
Aquadilla			20	28, 921			10	2, 452
Arecibo	4	2, 223	41	6, 750			16	3, 042
Austro-Hungary Ports	197	195, 572	46	21, 642			9	5, 086
Azof Sea Ports	324	?	31	?				
Bahama	16	22, 776	356	11, 516	17	22, 626	165	22, 247
Bahia	158	264, 822			25	SS. & others		86, 028
Barcelona (all sorts of vessels)	273	172, 365						
Beyroot	108	32, 400					2	751
Bengal	250	351, 288	336	395, 424			16	19, 403
Bermuda	73	57, 512	80	17, 061	2	1, 243		14, 403
Buenos Ayres	520	SS. & others		304, 261	90	SS. & others		45, 244
Cadiz	111	76, 473	207	32, 635			26	13, 716
Callao	221	SS. & others		185, 962	61	SS. & others		71, 606
Canton	704	656, 647	13	5, 258			3	1, 117
Cebu			14	9, 605			2	2, 095
Ceylon	3, 427	SS. & others		1, 107, 051			3	3, 935
Ciudad Bolivar			2	304			10	2, 462
Dantzic	329	247, 490	161	29, 693				
Dominion of Canada	5, 862	2, 079, 827			226	SS. & others	857	500
Dunkirk	703	?	598	?			16	?
Falkland Isles	19	2, 741	3	2, 727	1	29	2	518
Fayal	30	37, 706	19	5, 005	11	11, 419	72	20, 307
Fayardo			19	4, 114			11	2, 421
Foochow	161	147, 046	52	23, 803			5	2, 261
Funchal	374	515, 131	73	23, 142	3	3, 114	12	6, 111
Geestemunde-Bremerhaven	42	SS. & others		280, 428			25	24, 056
Gibraltar	4, 709	?	407	?			61	?
Gonaives	13	16, 171	4	500			33	4, 335
Guthenburg	118	56, 685	59	10, 880			1	314
Great Britain	22, 940	12, 528, 657	14, 285	4, 799, 076	33	65, 358	522	516, 006
Guáve			1	95			9	1, 247
Guaymas					13	10, 493	14	2, 034
Hamburg	2, 153	SS. & others		1, 179, 459			26	21, 396
Havre	1, 496	SS. & others		815, 294	108	SS. & others		100, 540
Hiogo and Osaka	53	63, 441	49	26, 992	2	1, 304	32	25, 630
Jaffa	24	11, 220						
Jeremie	4	4, 800					19	2, 833
J emel	50	77, 400	1	198			13	1, 689
Kanagawa	100	137, 627	66	42, 567	21	90, 525	54	45, 961
La Paz					23	20, 763	13	1, 596
Leghorn	237	199, 657	59	13, 896			8	4, 801
Marseilles	542	SS. & others		388, 400			48	25, 874
Mayaguez	67	68, 014	74	10, 951			70	13, 140
Mazatlan			3	1, 678	63	92, 912	15	3, 372
Manilla	51	24, 951	80	56, 152			30	32, 106
Maulmain	199	103, 321	57	49, 636			2	1, 539
Melbourne	1, 128	528, 308	787	343, 931	1	317	39	35, 396
Messina	310	264, 921	43	7, 851			14	5, 846
Montevideo	158	289, 025	147	63, 950			60	29, 603
Nantes	358	SS. & others		137, 394			2	882
New Chwang	61	42, 876	100	38, 899	1	477	16	7, 160
New South Wales	870	539, 182	1, 412	596, 123	8	24, 148	83	62, 445
Nicolaieff	304	?	2	?				
Ningpo	86	55, 370	13	2, 688			10	1, 233
Odessa	549	522, 510	4	2, 500				
Para	47	?	21	?	20	60, 387	48	?
Palermo	405	364, 583	40	7, 194			8	3, 323
Pruca	16	12, 800	139	17, 880			75	18, 750
Port au Prince	111	125, 798			1	376		
Progress	22	26, 191	5	969	53	88, 537	19	6, 544
Rangoon	52	76, 500	121	137, 000			10	11, 534
Revel	158	170, 504	9	5, 572			16	19, 038
Rio de Janeiro	554	SS. & others			171	SS. & others		
Rio Grande de Sal	81	SS. & others					13	?
Rotterdam	2, 267	SS. & others	90	1, 347, 622			23	24, 506

A comparison of the British and American shipping, &c.—Continued.

Ports (arrived at).	British vessels.				American vessels.			
	Steam.		Sail.		Steam.		Sail.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Sagua la Grande	5	4,619	56	18,731	.....	.....	185	80,540
Salina Cruz	.....	.....	1	585	21	36,673	.....	.....
Santos	50	78,369	63	15,465	.....	.....	5	1,681
Smyrna	188	172,591	50	13,287	.....	.....	7	3,529
Stettin	300	664,058	205	63,965	.....	.....	8	10,633
Saint Marc	26	44,076	1	85	.....	.....	15	2,582
Suez Canal*	.....	.....	1,127	1,653,857	.....	.....	1	2,000
Tahiti	33	35,253	12	3,626	.....	.....	9	1,165
Tamatave	.....	.....	.....	.....	.....	.....	7	3,632
Tampico	26	28,323	1	291	29	30,443	27	3,101
Tarsus	29	2,008	2	291	.....	.....	.....	.....
Tripoli	73	74,320	76	43,577	.....	.....	.....	.....
Ylesk	22	†	2	†	.....	.....	1	353

* All vessels.

QUICKSILVER IN EUROPE.

REPORT BY CONSUL-GENERAL VOGELER, OF FRANKFORT-ON-THE-MAIN.

Only two countries of Europe produce quicksilver in sufficient quantities to deserve mention in a commercial report—Spain and Austria. The Italian mines are insignificant. The opening of two mines in the Coblenz mining district—Lemberg and Kellerberg—in which about twenty hands are employed, is the first attempt at the production of quicksilver in Germany. The yield so far has been so inconsiderable as to count for nothing in comparison with the amount produced by the Spanish and Austrian mines. The German Empire cannot, therefore, be classed among the producers of quicksilver.

The Spanish mines are located near the town of Almaden, province of Mancha, and were formerly owned and operated by the Spanish Government. They are now, however, held and operated by the great firm of Rothschild Brothers, of London, England, as security for a loan made by them to the Spanish Government; indeed, they seem to be, to all intents and purposes, the property of that firm. These mines yield about four-fifths of the entire production of Europe, while the Austrian mines, located near Idria, and the minor mines mentioned produce the other one fifth. As a consequence London, to which place almost the entire product of the Almaden mines is shipped, is the controlling market of Europe, and Rothschild fixes the price of the metal, except in so far as California, which produces more quicksilver than Spain and Austria combined, may undertake to become a disturbing element in that direction.

Quicksilver is carried and shipped in wrought-iron flasks of 25 pounds, containing 75 pounds of the metal. Prices throughout Europe are always given in English money, and the quotations invariably refer to the flasks described.

The consumption of quicksilver in the world was estimated in the year 1876 to amount to about 80,000 flasks per year; in 1877, it reached

100,000 to 105,000 flasks, and in 1878 and 1879, it was shown to amount to 133,000 flasks per year, according to the following figures, viz:

The stock on hand on December 31, 1877, was:

	Flasks.
At Hong-Kong	20,000
At London	40,000
At San Francisco	15,000
At divers places	5,000
Total	80,000

The production was as follows:

	Flasks.
In 1878:	
California	63,000
Almaden	40,000
Idria	10,000
In 1879:	
California	73,000
Almaden	40,000
Idria	10,000
Total	236,000

On the 31st day of December, 1879, there remained on hand:

	Flasks.
In Hong-Kong	12,000
In London	20,000
In San Francisco	5,000
In divers places	13,000
Total	50,000

Showing a consumption in the two years (1878 and 1879) of 266,000 flasks, or an average of 133,000 flasks per year.

It will be seen from these figures that in 1878 and 1879, California supplied more than one-half of the entire amount of quicksilver consumed in the world.

During the first nine months of the year 1879, the price of quicksilver was almost stationery, varying but little during the entire period from £6 per flask. In October, 1879, however, Baron Rothschild created one of those commercial sensations for which he has become famous. Within the space of a few days he raised the price of quicksilver, with but few intermediate quotations, to £9 10s. per flask without any apparent cause; for the fact that the shipments from the Almaden mines would not arrive until December, furnished no rational explanation, inasmuch as the stock on hand was known to be ample for all legitimate purposes. Shipments from California, however, soon produced an effect upon the London market, and prices fell gradually until in December the quotation was £6 10s., the same as at the close of the preceding year. The receipts from California, which up to the year 1875 had averaged from 3,000 to 4,000 flasks per month, now rose to more than 6,000 flasks per month, and would have compelled a still greater reduction of price had not the increased demand, coming mainly from Japan and China, counteracted the downward tendency.

During the year 1880, the price was more uniform, for although Rothschild dictated an advance from £6 10s. to £7 10s. in January of that year, the price soon receded again to £6 10s., and the year closed with a downward tendency.

The statistical reports, obtainable at the present time, give the aver-

age price only up to October, 1881. During these nine months of the year 1881, the price averaged as follows:

	£.	s.	d.
January	6	7	6
February	7	0	0
March	6	5	0
April	6	5	0
May	6	5	0
June	6	8	0
July	6	8	0
August	6	5	0
September	6	5	0

From unofficial sources I learn that the price has not changed materially since October 1, 1881. Owing to the excess of production over consumption, however, brought about by the development of the California mines, the general tendency of the market seems to be downward, although the interest of the great London firm to maintain the price of an article in which they are so vitally interested must always be recognized as a leading factor in making calculations for the future.

The comparison between imports and exports for England is as follows:

Imports and exports.	Quantity.	Value.
	Pounds.	
Imports, 1879	3,979,682	£344,401
Exports, 1879	2,153,263	180,271
Excess of imports over exports, 1879	1,826,419	164,130
Imports, 1880	3,715,526	354,793
Exports, 1880	1,205,450	109,987
Excess of imports over exports, 1880	2,510,076	244,806

The amount of quicksilver on hand in Germany at any given time cannot be ascertained, because no statistics thereof are extant, neither can the amount annually consumed in Germany be stated with accuracy. The latter amount, however, will appear approximately from the following official figures showing the amount imported and exported by Germany during the years 1879, 1880, and 1881:

	Pounds.
1879:	
Imported	730,400
Exported	11,850
1880:	
Imported	670,780
Exported	9,900

The following table shows the amount of quicksilver imported and exported by Germany in the year 1881 by months, as well as the countries from which the metal was imported, and to which exported:

Months.	Bremen.	Hamburg.	Sweden.	Russia.	Austria.	Switzerland.	France.	Belgium.	Netherlands.	Great Britain.	Total.
January:											
Imported	660	7,700			33,360		220		220	4,620	47,080
Exported					220						220
February:											
Imported		1,980			110,660		220			6,600	119,460
Exported				440			440				880
March:											
Imported		880			54,340		220		1,760	3,060	62,260
Exported						660		220			880

Months.	Bremen.	Hamburg.	Sweden.	Russia.	Austria.	Switzerland.	France.	Belgium.	Netherlands.	Great Britain.	Total.
April:											
Imported		7,480			14,080			660		7,480	29,700
Exported		660									660
May:											
Imported	440	440			83,380		440			7,260	91,960
Exported			440	220	220			220			1,100
June:											
Imported	220				43,340		220			3,300	47,080
Exported		220		440		1,320					1,980
July:											
Imported	220	7,480			89,320		220	440		6,820	104,500
Exported				220		1,320					1,540
August:											
Imported		880			57,200					16,280	74,360
Exported	220			220							440
September:											
Imported		5,060			30,580				880	25,300	61,820
Exported			220				660				880
October:											
Imported		4,620			78,540			220	7,480	5,060	95,920
Exported		220					660				880
November:											
Imported		7,620			31,460				1,760	18,260	58,740
Exported			220	220							440
December:											
Imported		7,480			64,680			880		6,160	79,200
Exported				220		440					660
Whole year:											
Imported	1,440	51,260			691,240		1,540	2,200	12,100	112,200	872,080
Exported	220	1,100	880	1,980	440	3,740	1,760	440			10,560

Assuming, then, that the stock of quicksilver in Germany remained unchanged during the three years mentioned, and deducting from the amount imported the insignificant amount exported during the respective years, we have the following as the amount consumed in Germany during those years, viz: 1879, 718,520 pounds, or about 9,647 flasks; 1880, 660,880 pounds, or about 8,812 flasks; 1881, 861,520 pounds, or about 11,487 flasks.

The principal uses to which quicksilver is applied are: (1) Meteorological and other scientific instruments; (2) Chemical preparations; and (3) Looking-glasses and mirrors.

The leading manufacturing chemists in Germany who are consumers of quicksilver are Schering in Berlin; Tromsdorf, in Erfurt; and Heraeus, in Hanau.

FERDINAND VOGELER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, February 28, 1882

REMARKABLE CHANGES IN THE GERMAN IMPOSTS.

REPORT BY CONSUL OANISIUS, OF GEESTEMUNDE.

The German papers announce that an ordinance has been submitted for sanction to the Federal Council at present in session at Berlin, providing that in future only such petroleum as is of 21° Celsius shall be admitted into the market.

HAM COVERINGS.

The information of another significant decision of the imperial customhouse authorities at Berlin has just been received here, namely, that

the cotton coverings of hams shall henceforth be considered as imported cotton goods, for which 80 marks per 200 pounds import duty shall be paid. Our exporters of hams to Germany would do well to consider this decision and in future leave such covering off, if it is not absolutely necessary for the preservation of smoked hams. Besides the increase in the price of imported hams, it will also cause, as I believe, a good deal of trouble to pass through the custom-house all hams so covered.

CANNED MEATS.

But this is not the only remarkable decision of the custom-house authorities recently given concerning certain articles of import. Mr. Bamberger, a member of the German Parliament (Reichstag), entertained on the 13th of January, in a splendid and sarcastic speech, that legislative body with the recent determinations of the watchful custom-house authorities. According to the statement of Mr. Bamberger, in a recent session of the Reichstag, the tin cans in which American meats are imported are now also subjected to import duty. Formerly the import duty on this kind of meat was 12 marks per 200 pounds, but now it is 24 marks, because the cans in which it is packed are henceforth to be classified as *fine hardware*, and thus the cause of the remarkable increase in import duty.

And now [the deputy continues] I come to the goods which heretofore have been imported as braided (*gestickte*) trousers, jackets, and coats, subject to an import duty of 100 marks per 200 pounds; now, however, they are classified under the head of *millinery goods*, a duty of 300 marks per 200 pounds having to be paid thereon.

Emery, in powder and packed in tin cans, is, according to the tariff, free of import duty. For this, however, as fine hardware, an import duty of 24 marks per 200 pounds must be paid, because it is packed in tin cans. The well-known cheese has so far paid only 20 marks, but now pays either 24 marks, or, if it is declared to be "silver," 200 marks. Moreover, ink, for which 3 marks has hitherto been paid per 200 pounds, is now considered as *glassware in conjunction with other material*, and consequently subject to a duty of 30 marks. How it was thought possible that ink could be sent into the country in blotting paper or bags, I do not know.

Hungarian epsom water, which should be imported free, is subjected to an import duty of 30 marks per 200 pounds. Those who wish to drink Hungarian bitter-water should post themselves on the boundary and wait until it flows across.

Essences and fruit-juices, for which respectively 48 marks and 60 marks were paid as import duty, must now, according to the latest decision of the custom-house, pay 600 marks.

A merchant had sent to him, for the purpose of ornamenting his show-window, some empty champagne bottles, which were labeled and sealed. They were appraised as *fine glassware*, bearing a duty of 30 marks per 200 pounds, because labels had been pasted on them.

Certain sticking-plaster and paper for rheumatism should be free, according to the tariff, but, coming packed in tin boxes, are appraised as fine hardware and subjected to a duty of 24 marks.

Comfitures, candies, cakes, &c., which bear an import duty of 60 marks per 200 pounds, pay 600 marks when packed in silk-lined boxes. Blacking in tin boxes, and for which, according to the tariff, 5 pfennig is paid, is now appraised as *fine hardware*, and henceforth will pay 24 marks per 200 pounds.

Mr. Bamberger also remarked that the German consuls abroad had often blamed the German exporters for a want of neat packing of their goods. They said that this want reacted very detrimentally upon the disposal of their merchandise. But now, it appears, the very thing which was recommended to them (the exporters) is forbidden, as it were, to the importers. And in this way foreign goods are taxed so that the disposal of them in this country will be hindered.

The remarks of the deputy have no doubt made a deep impression on all commercial men in this country, and are certain to exercise a good

influence upon the proper authorities, though the recent decision regarding the packing of hams does not appear like it.

THEODORE CANISIUS,
Consul.

UNITED STATES CONSULATE,
Geestemunde, February 10, 1882.

THE LINEN AND FLAX INDUSTRIES OF EUROPE.

REPORT BY CONSUL WOOD, OF BELFAST, IRELAND.

I have the honor to transmit to the Department herewith a collection of tables—in all, twenty in number—containing statistics relating to the trade in linens, the growth and manufacture of flax, the spindles and machinery employed, and to various subjects connected more or less with the special industries of this consular district. These tables have been prepared by a gentleman of long experience in the manufacture and trade in linens, and they embrace, as will be observed, not only the immediate quarter of Belfast, but also England and, in a measure, the Continent. The inquiries for such statistics and information are necessarily pursued here through the agency of some person who has made them a study. It is hoped that the tables may be acceptable to the statistical bureau of the Department.

I have the honor to be, your obedient servant,

A. B. WOOD,
Consul.

UNITED STATES CONSULATE,
Belfast, January 20, 1882.

No. 1.—*Summary of the areas appropriated to the cultivation of flax in the countries enumerated.*

Countries.	Statute acres.	Stones per acre.	Tons.
Austria	218,042	33.14	45,162
Belgium	140,901	35.59	29,580
Denmark	6,292	20.00	787
Egypt	15,000	20.00	1,875
France	162,099	36.49	36,969
Germany	329,362	27.90	57,432
Greece	957	20.00	119
Great Britain	8,985	24.89	1,398
Hungary	27,048	31.36	5,301
Holland	44,114	26.79	7,386
Italy	200,356	18.33	22,953
Ireland	157,534	24.89	24,508
Russia	2,000,000	20.00	250,000
Sweden	33,639	20.00	4,205
Europe	3,344,329		487,675

No. 2.—*Progress of flax-spinning in Ireland since the year* 1850.

	Spindles.
In 1850	396,338
In 1861	592,981
In 1871	866,482
In 1874	880,559
In 1876	920,677

	Spindles.
In 1878	918,182
In 1879	906,522
In 1880	911,111
In 1881	835,951

No. 3.—Number of power looms in Ireland weaving linen fabrics.

	Power looms.
In 1859	3,633
In 1864	8,187
In 1871	14,509
In 1874	19,331
In 1876	20,152
In 1878	20,638
In 1880	21,153
In 1881	21,177

No. 4.—Statement showing the number of spindles and power looms existing in the several countries of Europe.

Countries.	Spindles.	Power looms.
Austria and Hungary	380,440	500
Belgium	295,140	4,755
Denmark	.....	70
England and Wales	190,808	4,081
France	470,000	22,000
Germany	318,467	8,000
Holland	7,700	1,200
Ireland	879,835	21,177
Italy	59,223	772
Norway	1,800	120
Russia	160,000	3,000
Scotland	265,263	16,756
Sweden	3,810	98
Switzerland	9,000	.....
Spain	.....	1,000
Europe	3,041,486	83,529

No. 5.—*Imports of flaxseed into Ireland from* 1867 *to* 1880, *inclusive.*

Year.	Riga, barrels (2¾ bushels).	Dutch, hogsheads (4b bushels).	English sacks (4 bushels).	Total bushels.	Sufficient to sow acres.	Average sown.	Price. Ex. Pic Riga, per barrel.	Price. Dutch, per hogshead.	Price. English, per quarter.
						Acres.			
1867	98,470	16,591	5,792	483,950	241,975	253,257	42 2	101 10	74
1868	45,580	19,414	7,608	325,860	162,930	208,446	6 7	102 1	90 9
1869	95,996	23,111	8,975	533,663	266,831	229,178	41 8	88 9	78 3
1870	61,877	15,600	3,800	340,969	170,484	194,893	41	84 6	72
1871	82,094	17,983	7,569	443,486	221,743	156,883	40	82 6	76
1872	41,105	8,125	6,682	227,470	113,735	123,003	42	95	80
1873	42,222	15,577	4,966	276,680	138,340	129,432	41 6	100	88
1874	34,439	13,668	1,832	223,540	111,770	106,886	36 6	77 9	76
1875	23,855	17,844	472	210,288	105,144	101,248	38	77 6	.....
1876	49,532	17,164	1,097	297,898	148,949	132,878	37 6	89 8	.....
1877	32,377	18,000	1,283	244,451	122,225	123,362	39	79	82
1878	28,092	12,252	2,142	192,654	96,327	111,808	45	95	85
1879	48,404	14,828	3,200	286,010	143,005	128,004	40	115	84
1880	66,732	10,017	2,045	311,861	155,930	157,534	36 6	110	81

No. 6.—*Imports of flax and tow or codilla into the United Kingdom for the years* 1879 *and* 1880, *showing the increase and decrease in quantity and value.*

From.	Quantities.				Value.			
	1879.	1880.	Increase or decrease.	Percentage.	1879.	1880.	Increase or decrease.	Percentage.
	Tons.	*Tons.*	*Tons.*					
Germany	2, 611	4, 423	*1, 812	69. 4	£89, 784	£156, 014	*£66, 260	73. 8
Other Countries	1, 232	1, 811	*579	47. 0	44, 104	91, 780	*47, 676	108. 1
Russia	59, 738	72, 369	*12, 631	21. 1	2, 084, 383	2, 823, 147	*938, 764	35. 4
Belgium	14, 252	12, 104	†2, 148	15. 1	927, 483	736, 997	†190, 486	20. 5
Holland	6, 922	4, 105	†2, 817	40. 7	435, 374	261, 581	†173, 793	39. 9
Total	84, 755	94, 812	*10, 057	11. 9	3, 581, 128	4, 069, 549	*488, 421	13. 6

*Increase. †Decrease.

7.—*Imports and exports of flax, dressed and undressed, and tow or cordilla, into and from the United Kingdom.*

IMPORTS.

From—	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Belgium	16, 905	15, 872	16, 546	14, 388	13, 816	11, 576	16, 016	12, 880	14, 252	12, 104
France	831	584	563	732	645	427	760	115	623	.....
Germany	12, 197	9, 656	10, 922	7, 160	4, 893	2, 164	8, 509	4, 880	2, 611	4, 423
Holland	8, 794	6, 696	8, 356	12, 876	8, 768	4, 944	7, 306	4, 768	6, 922	4, 105
Russia	86, 184	66, 401	72, 394	82, 702	60, 097	50, 944	78, 348	54, 181	59, 738	72, 369
Other countries	4, 462	1, 839	990	846	476	237	375	856	609	1, 811
Total	129, 353	101, 048	109, 771	118, 704	88, 697	70, 292	111, 314	77, 680	84, 755	94, 812

EXPORTS.

To—	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.*
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	
Belgium	126	1, 093	1, 194	1, 224	827	289	.....	100	150	.....
France	2, 563	2, 552	617	1, 507	2, 064	769	708	1, 189	909	.....
United States	689	1, 608	1, 073	1, 395	1, 115	740	1, 093	724	1, 712	.....
Other countries	1, 797	538	349	481	332	444	656	649	507	.....
Total	5, 175	5, 791	3, 233	4, 607	4, 348	2, 242	2, 367	2, 662	3, 278	.....

* No information.

8.—*Value of the exports of linen yarns from the United Kingdom in the undermentioned years.*

Year.	Value.	Year.	Value.	Year.	Value.
1840	£882, 876	1854	£942, 489	1868	£2, 308, 494
1841	972, 466	1855	932, 981	1869	2, 332, 088
1842	1, 025, 551	1856	1, 361, 989	1870	2, 237, 492
1843	898, 829	1857	1, 647, 053	1871	2, 218, 129
1844	1, 050, 676	1858	1, 746, 340	1872	2, 131, 071
1845	1, 060, 566	1859	1, 674, 602	1873	1, 976, 830
1846	875, 405	1860	1, 801, 272	1874	1, 716, 231
1847	649, 893	1861	1, 622, 216	1875	1, 855, 684
1848	493, 449	1862	1, 852, 451	1876	1, 449, 513
1849	732, 065	1863	2, 540, 404	1877	1, 291, 729
1850	881, 312	1864	2, 991, 969	1878	1, 213, 025
1851	951, 426	1865	2, 535, 321	1879	1, 075, 967
1852	1, 140, 565	1866	2, 374, 132	1880	977, 716
1853	1, 154, 977	1867	2, 449, 394	.....	.....

9.—*Exports of linen yarns of home production to the undermentioned countries from the United Kingdom for the years* 1879 *and* 1880, *showing the increase and decrease in quantity and value.*

To—	Quantities.				Value.			
	1879.	1880.	Increase or decrease.	Percentage.	1879.	1880.	Increase or decrease.	Percentage.
	Pounds.	*Pounds.*	*Pounds.*		£	£	£	
Other countries...	1,546,900	2,038,600	*491,700	31.8	£67,383	£88,309	*£20,926	31.1
Spain and Canaries.	5,964,400	6,839,200	*847,800	14.7	282,284	291,427	*9,143	3.2
Belgium	1,167,100	1,131,100	†36,000	3.1	116,080	106,532	†9,548	8.2
Italy	855,300	822,200	†33,100	3.9	49,770	45,697	†4,073	8.2
France	1,205,400	947,200	†258,200	21.4	138,700	122,164	†16,536	11.9
Holland	3,518,100	2,520,300	†997,800	28.4	160,910	120,215	†40,695	25.3
Germany	3,171,600	2,138,600	†1,033,000	32.6	260,840	203,372	†57,468	22.0
Totals	17,428,800	16,437,200	†991,600	5.7	1,075,967	977,716	†98,251	9.1

*Increase. †Decrease.

10.—*Quantities and declared value of the total exports of plain and white linen; printed, checked, or dyed linen; damasks and diapers; also linen thread from the United Kingdom.*

Year.	Plain and white linen.			Printed, checked, or dyed damasks, diapers, &c.		Linen thread.		
	Quantities.	Value.	Value per yd.	Quantities.	Value.	Quantities.	Value.	Value per lb.
	Yards.	£	*Pence.*	*Yards.*	£	*Pounds.*	£	*Pence.*
1861	110,124,908	£3,287,269	7.16	2,617,576	£107,614	2,390,461	£267,746	26.88
1862	144,786,131	4,128,220	6.84	7,046,349	264,804	3,909,062	429,034	26.34
1863	166,800,042	5,245,985	7.55	8,525,131	345,962	4,256,630	527,105	29.72
1864	198,194,145	6,614,284	8.39	14,333,308	598,934	3,978,321	492,194	29.69
1865	221,073,183	7,426,531	8.06	18,683,051	718,080	3,934,922	558,444	34.06
1866	232,837,903	7,981,743	8.23	15,998,705	659,438	3,784,849	571,398	32.43
1867	198,175,721	6,431,059	7.79	8,244,454	334,427	2,753,859	342,959	29.89
1868	197,635,508	6,173,898	7.50	8,887,854	344,902	2,676,960	318,230	28.53
1869	204,658,286	6,022,230	7.06	7,131,957	268,211	2,186,806	269,364	29.56
1870	210,405,228	6,271,734	7.11	12,405,841	421,178	2,378,631	283,028	28.55
1871	207,041,820	6,377,010	7.39	9,296,124	311,538	2,902,376	345,581	28.57
1872	233,828,338	7,241,338	7.43	7,397,940	233,736	2,641,732	317,566	28.85
1873	195,404,195	6,244,800	7.62	8,197,589	260,639	2,302,354	293,187	30.56
1874	180,926,285	5,876,864	7.79	8,987,132	287,754	2,690,059	337,907	30.15
1875	186,763,770	5,904,958	7.59	13,742,124	470,295	2,757,886	353,576	30.77
1876	146,666,075	4,365,072	7.14	13,181,129	449,918	2,638,131	349,549	31.79
1877	150,274,650	4,597,665	6.92	14,411,156	471,982	2,447,091	301,889	29.61
1878	147,499,700	4,423,879	7.20	9,719,600	299,204	2,395,200	285,415	28.60
1879	149,661,000	4,114,302	6.60	6,559,700	200,396	2,829,000	350,215	29.71
1880	156,418,900	4,813,241	7.39	5,041,500	149,765	2,898,636	373,390	30.92

11.—*Exports of piece linens of all descriptions (except sail cloth and unenumerated) from the United Kingdom for the years* 1879 *and* 1880, *showing the increase and decrease in quantity and value.*

Exported to—	Quantities.				Value.			
	1879.	1880.	Increase or decrease.	Per-centage.	1879.	1880.	Increase or decrease.	Per-centage.
	Yards.	*Yards.*	*Yards.*					
Hayti	1,003,100	3,420,900	*2,417,800	241.0	£50,590	£75,782	*£25,192	49.8
Chili	334,800	991,500	*656,700	196.1	11,741	29,057	*17,316	147.5
British North America	4,932,900	7,579,400	*2,646,500	53.7	108,410	183,837	*75,427	69.6
Portugal, Azores and Madeira	1,210,700	1,494,200	*283,500	23.4	27,915	33,799	*5,884	21.1
British India	1,576,300	1,841,700	*265,400	16.8	51,593	62,605	*11,012	21.3
Australia	9,508,100	10,477,300	*969,200	10.2	277,195	326,224	*49,029	17.7
United States	85,561,400	90,587,800	*5,026,400	5.9	2,338,900	2,733,448	*394,538	16.9
United States of Colombia	2,627,400	2,763,000	*135,600	5.2	59,610	61,404	*1,794	3.0
Other countries	13,581,600	13,468,800	†112,800	0.8	374,894	394,134	*19,240	5.1
Spain and Canaries	2,581,200	2,556,200	†25,000	1.0	100,218	108,977	*8,759	8.7
Italy	2,184,900	2,159,900	†25,000	1.1	87,250	88,196	*946	1.1
Brazil	3,649,600	3,469,500	†180,100	4.9	141,230	123,024	†18,206	12.9
British West Indies and Guiana	2,823,700	2,553,200	†270,500	9.6	64,790	62,055	†2,735	4.2
Holland	312,300	246,500	†65,800	21.1	10,870	9,588	†1,282	11.8
Spanish West Indies	9,499,200	7,415,500	†2,083,700	21.9	263,655	212,895	†49,760	18.9
Russia	1,416,700	1,102,500	†314,200	22.2	72,017	59,766	†12,251	17.0
France	4,646,100	3,387,200	†1,258,900	27.1	228,910	165,560	†61,350	27.7
Argentine Republic	1,455,700	1,049,900	†405,800	27.9	45,660	39,032	†6,628	14.5
Germany	6,016,400	4,324,500	†1,691,900	28.1	262,350	175,284	†87,066	33.2
Danish West Indies	999,300	456,000	†543,300	54.4	28,470	13,449	†15,021	52.8
Peru	299,300	114,900	†184,400	61.6	8,420	3,890	†5,530	53.9
Total	156,220,700	161,460,400	*5,239,700	3.4	4,614,698	4,963,006	*34,830	7.5

*Increase. †Decrease.

12.—*Statement showing the quantities of flax and tow imported into the United Kingdom ing the five months ending November,* 1881, *as compared with the same period in* 1880.

Imported from—	1880.	1881.
	Tons.	*Tons.*
Holland	586	906
Russia	28,894	45,383
Belgium	3,302	3,566
Germany	362	572
Other countries	221	427
Total quantities	34,365	50,854
Value	£1,368,128	£1,769,688

13.—*Table showing the exports of linen thread from the United Kingdom for the five months ended November* 30, 1881, *as compared with the same period of* 1880.

Months.	1880.	1881.
	Pounds.	*Pounds.*
July	236,821	206,500
August	223,881	207,800
September	188,439	177,200
October	199,046	230,060
November	225,411	216,760
Total	1,073,598	1,038,200
Value	£134,383	£132,512

14.—*Statement of the quantities of linen yarns exported from the United Kingdom during the five months ending November* 30, 1881, *as compared with the same period in* 1880.

Exported to—	1880.	1881.
	Pounds.	*Pounds.*
Holland	1, 171, 400	1, 113, 200
France	448, 400	693, 100
Italy	307, 200	349, 300
Germany	1, 078, 000	972, 000
Spain and Canaries	2, 836, 800	2, 534, 300
Belgium	540, 900	647, 400
Other countries	822, 500	1, 252, 800
Total	7, 205, 200	7, 562, 100
Value	£432, 834	£439, 976

15.—*Statement showing the quantities of linen piece goods (except sail-cloth) exported from the United Kingdom with the exports to the United States for the five months ending November* 30, 1881, *and as compared with the same months in* 1880.

Months.	Countries.	1880.	1881.
		Yards.	*Yards.*
July	United States	7, 301, 200	6, 771, 900
	Other countries	6, 736, 200	8, 329, 000
August	United States	6, 308, 300	8, 787, 300
	Other countries	5, 412, 600	8, 161, 600
September	United States	5, 751, 300	7, 810, 400
	Other countries	6, 206. 300	7, 086, 800
October	United States	5, 319, 500	6, 650, 900
	Other countries	6, 160, 800	6, 749, 900
November	United States	3, 395, 100	5, 417, 000
	Other countries	5, 829, 900	6, 551, 700

16.—*Computed value of the imports of linen into the United Kingdom.*

Years.	Belgium.	France.	Germany.	Russia.	Other parts.	Holland.	Total.
1866	£22, 168	£62, 143	£16, 227	£60, 556	£35, 023	£933	£197, 050
1867	27, 605	40, 248	12, 217	27, 562	61, 225	577	169, 434
1868	26, 673	37, 359	11, 139	27, 962	28, 212	6, 989	138, 334
1869	30, 910	36, 816	8, 914	36, 420	11, 613	5, 790	130, 463
1870	37, 399	44, 759	16, 755	20, 537	9, 173	6, 941	135, 564
1871	55, 937	49, 348	16, 440	30, 994	9, 616	10, 097	172, 432
1872	62, 932	65, 490	23, 309	40, 152	20, 297	5, 213	217, 293
1873	68, 458	91, 269	23, 047	26, 046	21, 203	4, 880	234, 903
1874	40, 000	99, 480	13, 158	40, 394	7, 311	11, 709	212, 052
1875	48, 603	92, 267	10, 367	30, 985	22, 246	11, 959	216, 427
1876	59, 749	94, 640	12, 731	57, 068	7, 020	9, 619	240, 827
1877	49, 246	121, 314	21, 668	63, 388	7, 960	26, 783	289, 459
1878	47, 602	85, 767	35, 144	26, 133	18, 065	23, 800	236, 611
1879	41, 774	65, 998	23, 545	36, 994	6, 282	25, 087	199, 680

17.—*Value of the exports of cottons, linens, and woolens of British and Irish manufacture from the United Kingdom, with the proportion of each to the aggregate, reduced to the per-centages.*

Year.	Cottons.	Linens.	Woolens.	Total.	Proportion.		
					Cottons.	Linens.	Woolens.
					Per cent.	*Per cent.*	*Per cent.*
1870	£56,745,210	£7,248,345	£21,664,953	£85,658,508	62.2	8.5	25.3
1871	57,760,207	7,503,816	27,182,385	92,446,408	62.5	8.1	29.4
1872	63,466,729	8,225,690	32,383,273	104,075,692	61.0	7.9	31.1
1873	61,468,172	7,306,153	25,349,878	94,124,203	65.3	7.7	27.0
1874	59,730,200	7,116,302	22,800,952	89,647,454	66.6	7.9	25.5
1875	58,598,853	7,272,920	21,659,325	87,531,098	66.9	8.4	24.7
1876	54,859,535	5,620,536	18,603,478	79,083,649	69.4	7.1	23.5
1877	57,035,019	5,834,443	17,343,203	80,212,665	71.1	7.3	21.6
1878	52,918,199	5,534,776	16,727,265	75,180,240	70.4	7.4	22.2
1879	51,867,092	5,473,127	15,861,166	73,201,385	70.8	7.5	21.7
1880	63,657,074	5,826,496	17,270,376	86,753,937	73.4	6.7	19.9

18.—*Declared value of the exports of the following primary articles of British and Irish produce and manufactures from the United Kingdom for the nine months ended September* 30, 1881, *compared with the corresponding period in* 1881:

[Compiled from the board of trade returns.]

Articles.	Nine months ended September 30, 1880.	Nine months ended September 30, 1881.	Decrease or increase.	Percentage.
Silk manufactures	£1,515,609	£1,897,621	*£382,012	25.2
Apparel and slops	2,208,762	2,582,752	*373,990	16.9
Paper and stationery	1,302,957	1,446,882	*143,925	11.0
Haberdashery	2,942,407	3,212,663	*270,256	9.2
Hardware and cutlery	2,547,367	2,776,380	*229,013	9.0
Jute manufactures	1,619,108	1,730,066	*110,958	6.9
Earthen and China ware	1,473,654	1,558,664	*85,010	5.8
Cotton manufactures	47,420,754	49,187,948	*1,767,194	3.7
Glass	673,822	698,742	*24,920	3.7
General exports (total)	167,045,977	171,819,622	*4,773,645	2.9
Woolen and worsted manufactures	13,542,013	13,706,770	*164,757	1.2
Beer and ale	1,301,136	1,284,121	†17,015	1.3
Linen manufactures	4,610,600	4,457,238	†153,362	3.3
Iron and steel manufactures	22,250,911	20,162,509	†2,088,420	9.4
Alkali	1,819,390	1,555,899	†263,491	14.5
Total	272,274,477	278,077,877	.....	.....

*Increase. †Decrease.

19.—*Declared value of the exports of the following primary articles of British and Irish produce and manufactures from the United Kingdom in the year* 1880 *compared with* 1879.

Articles.	1879.	1880.	Increase or decrease.	Per cent.
Iron and steel	£19,414,363	£28,307,175	*£8,889,812	45.8
Machinery	5,080,935	6,471,281	*1,390,346	27.4
Steam engines	2,198,270	2,790,592	*592,322	26.9
Alkali and chemicals	4,047,175	4,975,948	*928,773	22.9
Cotton manufactures	51,867,092	63,657,074	*11,789,982	22.7
Silk manufactures	1,697,209	2,028,741	*331,532	19.5
Jute yarn	200,112	234,770	*34,658	17.3
Glass	783,033	915,711	*132,678	16.9
Coal, coke, &c	7,206,799	8,378,944	*1,172,145	16.3
Hardware and cutlery	3,028,271	3,512,011	*483,740	16.0
Paper and stationery	1,581,920	1,829,677	*247,757	15.7
Jute manufactures	1,963,153	2,251,413	*288,260	14.7
Earthen and China ware	1,736,382	1,980,455	*244,073	14.1
Haberdashery, &c	3,486,920	3,869,036	*382,116	11.0
Woolen and worsted manufactures	15,861,166	17,270,367	*1,409,201	8.9
Linen manufactures	5,473,127	5,826,496	*353,369	6.5
Apparel and slops	3,208,941	3,193,755	†15,186	0.5
Beer and ale	1,755,334	1,729,524	†25,810	1.5
Cotton yarn	12,106,961	11,906,126	†200,835	1.7
Linen yarn	1,075,967	977,716	†98,251	9.1
Woolen and worsted yarn	3,714,230	3,344,028	†370,202	10.0

* Increase. † Decrease.

20.—*Declared value of the exports of the following primary articles of British and Irish produce and manufacture from the United Kingdom to the United States of America in the year* 1880, *compared with* 1879.

Articles.	1879.	1880.	Increase.	Per cent.
Machinery and steam-engines	£193, 726	£437, 969	£244, 243	126. 1
Iron and steel	5, 120, 451	9, 835, 193	4, 714, 742	92. 1
Haberdashery and millinery	297, 920	487, 421	189, 501	63. 6
Woolen and worsted manufactured piece goods	1, 563, 630	2, 509, 783	946, 153	60. 5
Silk manufactures	146, 677	218, 144	71, 467	48. 8
Hardware and cutlery	355, 330	494, 207	158, 877	47. 4
Cotton manufactures (piece goods)	1, 191, 910	1, 748, 645	556, 735	46. 7
Earthen and China ware	682, 290	903, 515	221, 225	32. 4
Beer and ale	93, 780	115, 193	21, 413	22. 8
Alkali	992, 350	1, 204, 891	212, 541	21. 4
Paper and stationery	85, 916	103, 333	17, 417	20. 4
Linen manufactures (piece goods)	2, 338, 910	2, 733, 448	394, 538	16. 9
Apparel and slops	63, 720	72, 617	8, 897	14. 0

[Form D.]

Statement showing the value of declared exports from the Consular District of Belfast to the United States during the four quarters of the year ending September 30, 1881.

Articles.	Quarter ending—				Total for the year.
	December 31, 1880.	March 31, 1881.	June 30, 1881.	September 30, 1881.	
Linens and cotton, Belfast and Ballymena	$1, 640, 623 49	$2, 237, 005 53	$1, 196, 799 31	$1, 940, 987 89	$7, 015, 416 22
Flax, hemp, and yarn	75, 998 00	162, 936 34	147, 936 31	201, 566 74	588, 437 39
Ginger ale	7, 999 41	11, 414 08	28, 748 52	23, 510 25	71, 672 26
Felt	6, 220 02	4, 781 35	6, 031 25	6, 777 32	23, 809 94
Iron ore	5, 696 24	6, 277 00	13, 210 10	16, 407 29	41, 590 63
Whisky and wine	2, 171 19	1, 356 39	1, 599 90	564 24	5, 691 72
Machinery and hardware	5, 265 16	7, 338 37	4, 272 79	7, 604 93	24, 481 25
Hides	7, 299 75	7, 299 75	6, 326 46	13, 919 17	34, 845 13
Terra alba	587 50	.....	.....	1, 057 98	1, 645 48
Books and stationery	17. 398 74	7, 904 71	5, 530 55	13, 597 28	44, 431 28
Sundries	1, 151 91	1, 548 31	404 45	974 71	4, 079 38
Total for the year	1, 770, 411 41	2, 447, 861 83	1, 410, 859 64	2, 226, 967 80	7, 856, 100 68
Total for preceding year	2, 327, 062 38	3, 654, 841 51	1, 659, 599 75	1, 774, 329 17	9, 415, 832 81
Increase	.....	.....	.....	452, 638 63	.....
Decrease	556, 650 97	1, 206, 979 68	248, 740 11	.....	1, 559, 732 13

THE WOOLEN INDUSTRY OF BRADFORD.

REPORT BY CONSUL SHEPARD.

Considering the rapidity with which the woolen manufactures of America are developing, it has occurred to me that a brief history of the same industry in England, from its inception, would not be uninteresting, but, on the contrary, might furnish valuable information and present profitable food for thought to persons engaged in a like business in the United States.

The manufacture of wool has been carried on from time immemorial, in that part of Yorkshire in which Bradford stands. Its origin is lost in the mists of antiquity, but its progress, nevertheless, has not been uninterrupted. During some periods it almost disappeared from the district only to be afterwards revived, until it has finally reached its present state of development.

There are proofs that even in the time of William the Conqueror the industry existed. It is said that as early as 1080 he brought over

weavers from Flanders and settled them at Worster, in Norfolk, and one authority has it that the *town* gave the name to the *cloth*, while another claims that the *cloth*—"Ostade," in Dutch—gave the name to the *town*.

Be that as it may, certain it is that the fortunes of the trade were varied. From Henry I to the time of Edward III, little is recorded; but the marriage of the latter monarch to the daughter of a Flemish earl gave a fresh impetus to the industry. His Queen induced Edward to accord the foreign weavers especial privileges, and during his reign the trade grew and flourished at Norwich.

Kings and governments in those days occupied themselves too much in interfering with and regulating trade, and none believed it possible that manufactures could flourish if left only to the energy and untrammeled enterprise of those engaged in them.

The interference of sovereigns was not, however, always hurtful, and there is no doubt that Edward III, and afterwards Henry VII and Elizabeth, greatly benefited the trade by bringing over to England, from Flanders and France, large numbers of work-people skilled in all the details of manufacture, which they not only practiced themselves but taught to the natives.

Elizabeth was greatly assisted in obtaining these valuable helpers by the merciless religious persecutions practiced by Philip II of Spain and his lieutenants. In 1685, the first year of the reign of James II, Louis XIV of France revoked the edict of Nantes, and by that act drove 70,000 workers in wool out of France into England and Holland. Indeed, one effect of these persecutions was to remove almost entirely, for many years, the manufacture of wool from Flanders and France to England. The former (incorporated in modern Belgium) never recovered her lost ground, but France has, in some branches of the trade, completely reasserted herself.

In the reign of Elizabeth, the city of Norwich was the chief seat of the manufacture of "stuffs," commonly called "worsteds," used for the clothing of women. The cloth is made from well-twisted yarns spun of a long, staple wool which has been combed in such a manner as to lay the fibers parallel.

This supremacy Norwich held until about the end of the eighteenth century when the trade began gradually to migrate to Bradford.

The causes of this migration are somewhat obscure. To be sure Yorkshire had a great advantage in water, coal, and iron, but these were very little used in manufactures at that time, although when the steam-engine became common this cheapness of coal and iron no doubt greatly accelerated the complete transfer. The principal cause seems to have been the character of the work-people. Long prosperity had made the artisans of Norwich turbulent and indifferent to their work, and like failings manifested themselves in the employers, who, being rich and prosperous, were indisposed to cheapen and improve their methods of manufacture. The Yorkshire people, on the other hand, were a frugal class, both employers and employed. They lived cheaply, worked for low wages, and gradually won the trade from more expensive Norwich.

France has of late years been more prosperous than Bradford, first, because she is ready to make what is wanted; secondly, because she has cheaper labor and longer hours, and, again, because of superior colors and dyeing.

Methodical, systematic, scientific Germany, has of late asserted *herself*, and signs are not wanting that she is, in all wool stuffs, not only supplying her own market but is becoming something of a competitor of

both France and England. How much the German tariff has to do with this state of things I cannot say. Not a little, I should think.

Manufacture was at first done entirely by hand, and in the homes of the workers. Women spun the wool with the distaff and spinning-wheel, while, with hand-looms, the men wove it into pieces. Carding, at that time, was also carried on in the homes of the work-people. The wool was weighed out to the carders by the merchants at their store-houses, generally in lots of 28 pounds, and taken by the former to their homes for scouring and carding. Two cards were used—one was a fixture, while the other was held in the hand. The hand-card was heated in an earthen pot over a charcoal fire (making the occupation most unhealthy) to a higher or lower temperature, according as the carder's experience told him the particular lot of wool under treatment required for proper working.

There being no check on these carders, by reason of the variation of shrinkage in washing of different wools, continual petty peculation was practised and the introduction of carding by machinery gave great impetus to the trade, not only on account of the saving of labor but also because the manufacturer was then enabled to keep the wool under his eye and key during the whole process. Sometimes the wool, after being combed, was taking into the different dales of Yorkshire to be spun.

Each village had its agents who received wool or the "top" from the manufacturer distributed it amongst the peasantry, and received it back as yarn. "Market days" had their origin in general convenience. It was, and is still, found desirable to have particular days in each week upon which buyers and sellers may be sure of meeting. Originally the manufacturers brought the product of their looms to market either on their own backs or by pack-horses, according to the number of pieces. There were "says" and "tammys" and "plain backs," all spun and woven by the seller's family and himself, or by those employed in the household. At first these pieces were taken to inns, where they were inspected by the buyers (mostly from Leeds), who purchased what they wanted, and sometimes gave orders in advance. Later a "piece hall" was built, in which were a lot of small rooms available for manufacturers at a small rental. These rooms were used not only for the exhibition of goods on market days but for their storage between times. In later years samples have generally been shown at the town offices of the business men, while the commodious Exchange is used for the taking of orders and completion of bargains.

Spinning by machinery was done long before *weaving*—the spinning frames of Arkwright, Hargreaves, and Compton having come into use at the close of the last century, while about the same time, Watt having succeeded in making his steam-engine available for mills, the spinning was done by that power.

Looms moved by machinery were not, however, sufficiently perfect to be employed in the worsted trade until about 1826. The first in Bradford to do spinning by machinery was a Mr. James Garnett. The industry has been handed down from father to son until now, in the same place, the same business is carried on by the firm of Wm. Garnett & Co., composed of the grandson and great grandsons of the founder.

Jacquard looms, used in making goods with woven patterns, were introduced in 1832. The data do not exist for a trustworthy estimate of the enormous increase of production which the introduction of machinery has brought about in the worsted trade, but a competent authority has reckoned that in the year 1810 the total value of the produce of the manufacture was £1,920,000 ($9,600,000), the basis of com-

putation being the amount of drawback on "soap duty" allowed to those who used that article in manufacture.

In 1815 the worsted trade of Bradford, Halifax, and Keighley had risen, according to the same reckoning, to £2,300,000 ($11,500,000), of which the exports were £1,501,015 ($7,505,075). The total value in the same year of the *whole* woolen manufactures of the kingdom was computed at £16,500,000 ($82,500,000).

In 1825 the total value of the worsted trade of Bradford and district was about £7,000,000 ($35,000,000), and in 1830 £8,000,000 ($40,000,000).

Let us, in order to better realize the increase, compare these figures with those of the present time. The value of the exports of worsted and mixed goods from Bradford and district, including yarns, but excluding broad and narrow cloth for men's wear, carpets, flannels, blankets, and other woolen goods, was, in 1880, £10,478,974 ($52,324,870). In 1872 it reached £20,000,000 ($100,000,000).

It is reckoned that the home trade is at least double the export trade, which would bring the total value of the manufacture of 1880 up to £31,463,922 ($157,184,610), and that of 1872 up to £60,000,000 ($300,000,000).

The machinery used in Bradford and district is, and always has been, practically of English make and invention, although the "Jacquard" machine was invented by a Frenchman, whose name it bears.

WOOL.

The wools used in Bradford include, perhaps, every variety grown in the world, the United Kingdom still furnishing a large proportion, and vary from the long, coarse, bright Lincoln wools to the fine short Sussex Southdowns. Between these extremes there are a great variety in lengths and quality.

The total amount of wool grown in the United Kingdom in 1881 was 138,574,763 pounds; of that was exported 14,076,300 pounds, leaving for home consumption 124,498,463 pounds. The total imports of wool, alpaca, and mohair during the same period was 459,732,216 pounds; of that was exported again 265,359,848 pounds, leaving for English consumption 194,372,368 pounds; total English consumption, 318,870,831 pounds.

Of countries abroad, the largest supply comes from the Australian colonies, and here the assortment of qualities and lengths are even greater than in England. They vary from the long bright New Zealand cross-bred wools, resembling Lincoln in character, to the finest Port Philip merinos. These wools arrive some "in the grease," without washing either on the sheeps' backs or after having been clipped, some washed on the sheeps' backs, and some scoured by machinery after clipping. The tendency is to encourage importation "in the grease," as in that condition the wool best retains its desirable properties, and, besides, no danger exists of its being damaged by any bad process of washing or scouring. The manufacturers prefer to deal with it, from the beginning in their own way.

Wools from the Cape of Good Hope are not largely used in Bradford, but are better adapted for the Scotch and west of England manufactures of men's cloth.

The countries bordering on the River Platte (South America) are large producers, though only a certain portion of the product, the "combing wools," so called, comes to Bradford, the French and Belgians being the largest users. This wool is for the most part—not entirely, however—

fine and short, very heavily charged with grease, and infested with a kind of burr, the seed of a thistle-like weed which grows largely in that country. These burrs become embedded in the wool and greatly lessen its value.

The countries washed by the Mediterranean also send large quantities of wool to Bradford—Morocco, Egypt, and also Persia—most of which is coarse and much of it grey. French, Spanish, and Italian wools are mostly used in the countries producing them, but still find their way hither in small quantities.

Dutch wool, which is long, coarse, and of a certain brightness, is also used in Bradford. It comes generally unwashed, and is of a lower character than the English production of a similar general quality.

Russian wool is largely imported, and varies, as may be expected in so vast a country, from fine merino to the lowest classes. It is chiefly used for moreens.

Camels' hair is also imported both from Russia and China.

Besides all these, mohair from Turkey and the Cape, and alpaca from Chili and Peru, are largely used, and must be reckoned as among the cheap staples of Bradford.

The descriptions of goods into which the wools of each country are worked can only be described approximately. They are mixed with each other in infinite variety, and the lower qualities of many ranges of goods are made from different kinds of wools to those used in the better qualities of the same range—that is to say, a low coburg is frequently made from non-luster English or Irish wool, while the better coburgs are made from English Down wools or from Australian.

The warp for all wool fabrics, requiring length and strength, is generally made from longer and stronger wool than the weft, which is most frequently spun from linen and softer wool. As will be seen, therefore, the warp of all-wool goods is often made from quite different wool to the weft.

Speaking generally, it may be said that from the strongest sorts of English wools, such as those grown in Yorkshire and Lincolnshire, there are made Orleans mixed dress goods of lustrous character, such as low princettas, dress cords, Russell cords, used abroad for both women's and men's wear, Sicilians and glaces, which latter are very light dress goods, and, like all the descriptions now named, made with cotton warp.

The next grade, in home wools, such as those from Northumberland, the south of Scotland, and Kent, are made into lastings used for linings and for the tops of women's boots, damasks and reps (for furniture), yarns used in the making of braids and stockings, coburgs and all medium non-lustrous dress goods. The finer kinds of home goods, such as the Downs from Sussex, Hampshire, and the finest from other countries, are made into "finger-yarns" (for knitting), and the better stocking yarns, non-lustrous dress goods (of a better quality than the last-named), common serges, and paramattas.

The stronger kinds of Australian wools, called cross-breds, are used often for the same purposes as similar qualities in English wools, such as the weft for the lower and middle qualities of Coburgs, Thibets, Sicilians and Italians. All these (especially the last) are largely used for linings. All-wool and mixed serges are also made from these wools. The finer sorts of colonial wools are woven into the best Thibets, Persians, cords, Italians, and all-wool cashmeres; also into any other goods where fineness and softness are especially desired.

River Platte wools, when used, come in for the same purposes as the commoner sorts of fine Australian. The common Mediterranean wools

are largely used for carpets, Moreens, and strong heavy goods. Mohair the fleece of the goat, is the brightest fiber used. It is made into excellent dress goods, mixed with cotton, wool, or silk, and the yarn from it is used in heavy quantities for making braids, and also in manufacturing imitation seal-skins, mantels; and rugs.

Alpaca is also of a bright nature, and is used almost entirely for dress goods; but, as fashion for a long time past has been for materials of a soft, dull finish rather than for those having a bright appearance, mohair and alpaca have become much lower in price, as compared with wool, than formerly.

The prices of wool have varied little during the past year. There has been a slow and steady demand throughout, and but little speculation to disturb the market. Lincoln hog fleeces (first clip) in December, 1880, were worth about 14½*d.* per pound (29 cents). Wethers (second clip) about 13½*d.* (27 cents). To-day they are worth 1*d.* to 1½*d.* less (2 to 3 cents). Other sorts have ranged similarly during the year. Down wools are advanced about 1*d.* (2 cents). It may be mentioned that nearly all English wool is washed on the sheep's back, as distinguished from being left "in the grease," which is the state in which the wool arrives from most other countries.

Australian wools are, like English, worth on the whole about 1*d.* (2 cents) per pound less than at this time last year. The range of prices and descriptions is so wide that quotations will be hardly intelligible, but the following table will give some idea of the present value:

MERINOS.

Port Philip, washed	16*d.* to 30*d.* (32 to 60 cents).
Port Philip, greasy	10*d.* to 16*d.* (20 to 32 cents).
Sydney, washed	16*d.* to 24*d.* (32 to 48 cents).
Sydney, greasy	9*d.* to 14*d.* (18 to 28 cents).
Adelaide, greasy	9*d.* to 12*d.* (18 to 24 cents).

CROSS-BREEDS.

Port Philip, greasy	10*d.* to 16*d.* (20 to 32 cents).
New Zealand, greasy	9*d.* to 14*d.* (18 to 28 cents).
Morocco, washed	9*d.* to 12*d.* (18 to 24 cents).
Morocco, greasy	5½*d.* to 7*d.* (11 to 14 cents).
Egyptian	9*d.* to 14*d.* (18 to 28 cents).
Persian	8*d.* to 10*d.* (16 to 20 cents).
Dutch, greasy	9½*d.* to 10*d.* (19 to 20 cents).
Mohair	18*d.* to 22*d.* (36 to 44 cents).
Cape Mohair	12*d.* to 17*d.* (24 to 34 cents).
Alpaca	13*d.* to 16*d.* (26 to 32 cents).
River Platte, merino fleece	8*d.* to 9½*d.* (16 to 19 cents).

The losses in weight by scouring of the wools vary, of course, in proportion to their condition as to grease and earthiness. Washed English wools loose from 15 to 20 per cent. in scouring, and a further deduction of 5 to 8.7 per cent. must be made for the "noils" which are removed in the process of combing, leaving of "top" or sliver (that is the clean wool combed ready for spinning) from 70 to 80 per cent. of the original weight of wool taken from the sheep's back.

Australian washed wools yield about the same percentage of scoured wool as the English, or perhaps somewhat less. Australian "greasy" vary from the Adelaide wools, which are the heaviest, and which often yield only 25 to 30 per cent. of "top" to the better classes of Port Philip, Sydney, and New Zealand, which latter yield from 40 to 55 per cent.

BRADFORD TRADE.

The original trade of Bradford was confined to goods made entirely from wool, but about forty years ago it was found that a mixture of cotton, in the form of a warp, with the worsted weft, made a variety of excellent, durable, and cheap dress goods. These goods, many of the varieties of which are named above, had a great run for many years, and are still, in spite of adverse fashion, made in large quantities. They are never likely to die out entirely, as for certain purposes and for certain uses they are preferable to goods made entirely from wool. For one thing, they are very much cheaper.

Bradford manufacturers continued to make these goods, and in the same immense quantities, long after fashion had greatly lessened the demand for them and had declared in favor of those made entirely from wool, with a dull, soft finish. They have, however, paid dearly for their stubbornness, and are at last acting upon advice given them long ago. They believed that as these goods had for so long a time sold easily and regularly they would always continue to be wanted, and large stocks were persistently accumulated which had finally to be cleared out at a heavy loss.

The whole trade—manufacturers, dyers, and merchants—were too much wedded to old methods, which they insisted would pay and suit in the *future* simply because they had in the *past*. I am glad to say, however, that the great majority of the trade is finally alive to the necessities of the occasion, and I believe that in the near future Bradford will make as fashionable all-wool dress goods as are produced anywhere. It is more disposed to adapt its productions to the demands of its customers than ever before, and it has given up expecting those customers to be content with any sort of goods which it thinks proper to offer them.

It strikes me as anomalous, however, that there still remain prominent men in and about Bradford, prominent both in position and wealth—men who made their fortunes out of the *old* Bradford trade, and who, it would therefore seem, were morally bound to be the first to encourage and foster the *new*—who have not, because of great wealth or from some other cause, exerted themselves to meet the altered state of affairs. This indifference would seem inexcusable in them so long as they remain in the trade. One, a manufacturer, folds his hands and makes public a resolution to let his looms stand idle unless the old trade comes back to him. Another, probably the wealthiest of all the dyers, one who has made much money in times past, and who, it must be admitted excelled in dyeing "luster goods," has, so I am told, stood so perfectly still in the matter of dealing with soft or "all-wool" goods that this class of manufacture must often be sent from Bradford to Scotland to dye. This gentleman has lately read the Bradford trade in general a public lecture upon its shortcomings, its backwardness, and its lack of adaptability. He has volunteered to instruct his neighbors as to how they may, and should, remove the mote from *their* eyes, while he seems insensible to the presence of the beam in his *own* eye. I feel inclined to pursue the ancient parable to its moral, as not a year ago this same gentleman condemned me because I claimed, for Bradford trade (in an official report which found its way back to this country), almost exactly the same language. Still another dyer says, "Why should I enlarge, improve, and expend? I have as much as ever I can do." True, he has as much as ever he can do *now;* but the question is, will he not, in the near future (if he continues in his

present frame of mind), have more leisure than he desires wherein to correct his logic and mourn his short-sightedness?

In contradistinction to such instances, I am pleased to mention the firm of Lister & Co., who have always been pre-eminently enterprising, and another manufacturing firm whose sagacity in times past built up a town about its works and which has now adapted itself to the new order of things. It will, I trust and believe, reap the reward which energy so richly deserves.

The technical school spoken of in a former report promises to exercise a most beneficial influence upon the trade of Bradford. Already some of the students have taken prominent and responsible positions in manufacturing firms, and one has been awarded the first prize for designs in textile fabrics at the Yorskshire College.

There is no doubt that Bradford was injured, even among her own countrymen, by the common prejudice in favor of French manufactures because they were *foreign*. For other reasons there has been, in the past, plenty of justification for this prejudice, but it is hoped and claimed that very soon, in quality and durability, appearance, and other points, there will be no better value to be had than in Bradford goods. Many new styles have been introduced, and many adaptations and improvements of old descriptions utilized, such as wool twills, foules, beiges, estamenes, serges, worsted coatings, and ladies' mantle cloths. Besides these, cashmeres and merinos have been so improved as to constitute almost a new trade, and beautiful dress goods, made from real cashmere hair and from Vicuna wool, are selling readily to the most opulent classes of buyers. A foule, for instance, may be had, with cotton warp for 6*d.* per yard (12 cents) and with worsted warp for 8½*d.* (17 cents). They are, at these prices, quite beyond competition from any other quarter.

Beiges, also, which used to be imported from France, are produced at similar prices and are exported thither.

Estamenes, a kind of serge, were formerly made in the west of England only, but within a few years Bradford has taken them up and made a large trade. Until lately they were only heavy, for ladies' winter mantles or cloaks, or for men's summer suits; but now lighter makes have been introduced, composed of finer kinds of wool, and principally used (as are foules) for ladies' summer dresses. The increase is due to the widening of the range of qualities for more purposes and for the wear of more people. Serges, both all wool and with cotton warp, are a very old description, but they have been greatly improved of late and are now very popular both for men's and women's wear. Many of them are slightly milled. The manufacture, in Bradford, of worsted coatings is a comparatively new industry. Not only is the production large, but the varieties are great, and the perfection attained in fancy patterns insures successful competition with Leeds and Huddersfield. They are preferable for many uses to the old, double-milled West of England and Leeds cloths, and are also gotten up in styles suitable for ladies' mantle cloths. One variety is figured, and called "matelassés." In all these new sorts of goods Australian wool predominates.

MARKETS FOR BRADFORD GOODS.

The foreign and colonial markets for the sale of Bradford products comprise every civilized country in the world, and some that are not civilized. The United States take, in limited quantities and in spite of adverse tariff, almost all descriptions of dress goods, linings, and last-

ings for boots. France is one of Bradford's best customers, buying nearly all kinds and qualities of dress goods; mohair, alpaca, glaces, Orleans, and lining cloths. Germany requires similar ranges, but in smaller quantities and in rather lower qualities. Italy receives generally the lowest qualities, both in plain and fancy goods. Belgium, about the same kinds as France. Holland buys very little above 9*d.* per yard (18 cents), and nearly all of mixed wool and cotton goods. Austria is a comparatively small customer, excepting for lastings. Spain, owing to her discriminating tariff against Great Britain, takes few Bradford stuffs, while Portugal follows her example. To South America (the River Platte, Peru, Chili, and Brazil) are exported considerable quantities of black Orleans, princettas, lastings, all-wool and mixed crapes, figured Orleans and long ells (a kind of wool serge). To Norway, Sweden, and Denmark, but few stuffs are exported. Russia takes little beyond a few lastings and Italians. Egypt buys low merinos of high colors. To the colonies, most of the descriptions used in England for both sexes, are largely and increasingly exported; indeed, there is little difference in the description of goods exported to any of the English-speaking communities in the world—the United States, Canada, Australia, New Zealand, or the Cape of Good Hope.

To the end that the prices, in America, of certain staple goods may be compared with the prices of those same goods at the seat of their manufacture (Bradford), I give a brief schedule—

Articles.	Cost in Bradford.	Cost in New York.
	Per yard.	*Per yard.*
Serges	$0 20	$0 40
Tweeds	50	1 10
Nuns' cloth	30	58
Cheviots	50	78
Farmers' satins	17	35
Cashmeres	15	32
Poplins	14	30
Figured alpacas	09	20

YARNS.

The quantity of worsted yarn, to be used for warp and weft in weaving dress or other goods, exported from Bradford is considerable. Germany takes more than any other country, and of all sorts, single, twofold, for warp and weft, and also for "small wares, braids," &c. Holland, France, and Russia are good customers, and Belgium pretty good, although I must doubt if what goes to Holland is really more than in transit to Germany.

The yarn sent from Bradford is mostly made from English wools (or wools from the United Kingdom), and *combed* as distinguished from *carded.* The Germans and French make, themselves, the most of their carded yarns from Australian and European fine wools, and are competitors with Bradford, in those yarns, for Russia and other continental markets. The change in fashion from bright goods to soft grades has also unfavorably affected the export of yarn.

C. O. SHEPARD,
Consul.

UNITED STATES CONSULATE,
Bradford, February 21, 1882.

CANTERBURY (NEW ZEALAND) WOOL.

REPORT OF CONSUL GRIFFIN, OF AUCKLAND.

I have the honor to report that I shall this day forward to the Department, per Pacific mail steamer City of New York, one case marked H, containing samples of Canterbury (New Zealand) wools. These samples were forwarded me by Mr. John Cooke, manager of the New Zealand Loan and Mercantile Agency at Christchurch, New Zealand. Mr. Cooke, in a letter addressed to me accompanying the samples, dated January 12, 1882, says:

> The samples fairly represent the character of staple produced in this port, though the condition may vary from season to season. It will be observed that while the wools carry heavy yolk and grease they are quite free from burs, and perfectly sound. The price affixed to each sample is its present value in this market; of course this varies from time to time in sympathy with the fluctuation of the wool market in London. The quotations now current are slightly above the average of the past few years, and as evidence that growers are satisfied with them, a larger quantity of wool has changed hands this year than in any former season.

SAMPLES OF WOOL.

I inclose herewith (inclosure No. 1) a specification of these samples, setting forth the price per pound of each kind of wool in English and United States money.

The samples represent the wools in their natural state, in the grease, just as they were clipped from the sheep without any washing or artificial dressing whatever. They are seventy-seventy in number, and are tastefully packed in a large and elegant black leather portfolio, each sample being entirely separated from the other, with the price and quality of each kind plainly marked in gilt letters on small black morocco tags, together with the weight of the fleeces from which they are taken.

I would especially direct the attention of the Department of State to the eighteen samples of pure-bred merino. These are considerably longer in staple than the wool of the best pure-bred stock grown in the most favored districts of New South Wales or any of the other Australian colonies, and are equally as fine, soft, and silky. They present, I think, a distinct type of wool peculiar to New Zealand. The prices range from 19 to 26 cents per pound, this being their market value in Christchurch, on the 12th instant. There are twenty-one samples of merino crosses of different degrees, and their prices range from 16 to 21 cents per pound. There are also twenty samples of Leicester wools, running from the ordinary Leicester to the English and border Leicester. These, like the others, are unwashed and range in price from 13½ to 21 cents per pound. Of the Romney Marsh, there are eight samples, 16 and 18 cents per pound being the current prices. Of Lincoln wools there are ten samples, ranging in price from 12½ to 15½ cents per pound. The weight of the fleece from which the samples were obtained ranges from 14 to 24 pounds per fleece of twelve months' growth.

QUANTITY OF WOOL PRODUCED IN NEW ZEALAND.

In my report on "the wool industry of New Zealand," transmitted to the Department of State, in December last, I expressed the opinion

from information I had received from the various wool districts in the colony, that the value of the wool clip of the present season would probably not fall short of the sum of $20,000,000. It is safe, however, to set down the annual quantity of wool produced in New Zealand at 185,000 bales, each bale averaging from 360 to 390 pounds. The following table shows the number of bales of wool shipped from each port of this colony:

Table showing the number of bales of wool shipped from each port of the colony of New Zealand.

SOUTH ISLAND.

Place of shipment:	Bales.
Lyttleton	43,000
Port Chalmers	57,000
Bluff Harbor	10,000
Total	110,000

NORTH ISLAND.

Wellington	40,000
Napier	20,000
Auckland	10,000
Total	70,000

In addition to these shipments, about 5,000 bales are used in the various woolen factories on the South Island.

CLASS OF WOOL.

Of the wools shipped from the South Island about 15,000 bales have the English or long-wool strain, either as ½ bred, ¾, ⅞ to 1⅛ pounds, or pure bred, *i. e.*, merino ewes are crossed with the Leicester, Lincoln, Lincoln-Leicester, or Romney Marsh, thus producing the first-cross or half-bred. Their progeny is again sent to the pure Lincoln ram and three-fourths strain is produced, and so on until the result is nearly pure long-wool. The remaining 95,000 bales are the fleeces from the merino flocks which predominate throughout the South Island. All these grades are fairly represented by the samples herewith. Of the 70,000 bales shipped from the North Island a larger proportion is of the long-wool type, the country and grasses of the North Island being better adapted to this class of sheep.

SHEARING SEASON.

The time for shearing varies according to the locality. In some parts of the North Island it begins as early as the month of September, but in the South Island where the climate is more vigorous, New Zealand being south of the equator, operations are not begun until January, and frequently March is approached before the season is finished.

DESTINATION OF NEW ZEALAND WOOL, AND THE COST OF FREIGHT.

The whole of the wool product of these islands, with the exception of 5,000 bales for local consumption, and a few small shipments to the United States, goes direct to London. The cost of freight to London is from five-eighths to one penny per pound. About one-tenth of this wool is forwarded to the manufacturing districts direct, and the remaining nine-tenths is sent to the warehouses for sale by auction.

AMERICAN BUYERS.

In former years American wool buyers appeared in the Canterbury market, and purchased several clips of fine merino at rates about equal to those now current there. The bulk of their purchases was shipped direct to Boston, but within the last few years there has not been a single direct shipment of wool from Canterbury to the United States. There were however, during the year 1881 a few small shipments of wool from Auckland via the Pacific Mail Steamship Company to San Francisco, and from thence by railway to New York. The total value of these shipments amounted to $43,675. All of this wool was grown in the province of Hawkes Bay, and was shipped to this port from Napier for transshipment to San Francisco and New York.

The cost of freight on wool from Auckland, New Zealand, and Sydney, Australia, to San Francisco and New York via the Pacific Mail Steamship Company, wool compressed, in any quantity, is as follows: To San Francisco, 1 cent per pound; to New York and Boston via San Francisco and railroads, 2 cents per pound; to New York via San Francisco and Panama, all steamer, 1½ cents per pound; to Boston via San Francisco and Panama, all steamer, 1⅝ cents per pound.

THE PROVINCE OF CANTERBURY.

Canterbury, the province in which the samples of wool were grown, is, perhaps, the richest and most interesting part of the colony. It comprises an area of 8,693,000 acres, of which 2,500,000 acres form a vast plain, sloping gradually down from the mountain range, called the Southern Alps, to the sea.

The population of Canterbury, as shown in the last census, was 112,115. In 1871 its population was only 46,801. The number of sheep in the province is 3,912,000. These are distributed among 1,680 owners. Some of these owners have as many as 212,000 sheep on a single run. The runs vary in size from 5,000 to 120,000 acres, and all of them are well grassed and watered.

CANTERBURY MERINO.

Canterbury merino wool is much stronger and finer than that generally grown in the Australasian colonies. It separates freely like a skein of silk, and manufacturers find that there is very little waste about it when passing through the combing process. I have examined some specimens that have received as bright and distinct colors as can be given to the finest qualities of silk. In some respects it is superior to Saxony wool, which is often described as the best in the world. For instance, it is richer in yolk than Saxony; and this is saying a good deal, for Saxony wool often yields fully 85 per cent. of yolk; but it must be remembered that thi s large yield of yolk is brought about by the process of sweating the sheep before shearing; whereas the Canterbury wool yields nearly as great a percentage of yolk or fatty matter as that of Saxony without passing through the artificial means of sweating, which is not needed in Canterbury on account of the evenness of the climate and the excellent condition of the grasses. The average yield of yolk in the Canterbury wool can be safely set down at 65 per cent. Lincoln and Leicester wools do not yield more than 20 per cent. Yolk is described by Mr. Freteck as a soapy matter consisting of animal oil in combination with potash and carbonate of potash. It appears to be produced in small glands for the special nourishment of wool. The

finest unwashed wool measures, under the micrometer, $\frac{1}{1227}$ inch, and washed, $\frac{1}{1405}$ inch.

HAWKES BAY WOOL.

The wool which finds its outlet at this port to San Francisco is grown principally in the province of Hawkes Bay. This province is a fertile and interesting one. It lies between Auckland and Wellington, with the former on the north and the latter on the south. Its western boundary is formed by the Ruahine range of mountains. The province comprises an area of about 3,000,000 acres, the greater part of which is so fertile that crops of every kind can be grown without the aid of artificial manuring. In the center of the province are the famous Ahuiri plains, which have often been compared to the rich alluvial lands which form the basin of the Trent. The Ahuiri plains are watered by three large rivers, the Wairoa, Mohaka, and the Waruroro, which take their rise in the mountains and empty into Hawkes Bay, from which the province is named. These rivers also receive the drainage of the plains. It is said that at any point on these plains an unfailing reservoir of pure water can be obtained by the expenditure of a sum less than $100. An artesian pipe is driven from 50 to 100 feet, and pure water gushes forth in the greatest abundance. This fact renders the land very desirable to small farmers who reside at a distance from the rivers, thus enabling them to water their stock and irrigate their land fully as well as if they lived on the banks of running streams. The country is so fertile that even the land which is set apart for sheep-runs is so rich that it is capable of maintaining from five to seven large, long-wooled sheep per acre all the year round. In one part of the province the forest is so extensive that it is known by the name of the *Seventy Mile Bush*. In this forest there are extensive clearings, which are occupied as sheep-runs. The returns for the year 1881 show that the number of sheep in this province was 2,160,000, being an increase of 569,978 over that of the year 1880.

UNITED STATES DUTIES ON NEW ZEALAND WOOL.

It is perhaps not generally known that the rate of duty charged on New Zealand wools imported into the United States is more than 10 cents per pound; for even after that assessment is made, an ad valorem duty of 11 per cent. is added. According to section 2503 of the Revised Statutes of the United States, Merino, Mediza, Metz, or Metis wools, or other wools of Merino blood, immediate or remote, down to clothing wools and wools of like character with any of the preceding, including such as have been heretofore usually imported into the United States from Buenos Ayres, New Zealand, Australia, Cape of Good Hope, Russia, Great Britain, Canada, and elsewhere, are charged at the rate of 10 cents per pound, and in addition 3 to 11 per centum ad valorem.

It is true enough that the wool industry of the United States has increased rapidly during the last few years. The total wool clip in the United States in 1877 amounted to 208,250,000 pounds, in 1878 to 211,000,000 pounds, in 1879 to 232,500,000 pounds, and in 1880 the amount swelled to 264,000,000 pounds. The returns for 1881 will doubtless show a still further increase, but at the same time there has been a corresponding increase in the imports of wool. In 1878 there were imported into the United States 34,250,000 pounds of wool, in 1879 the amount increased to 66,000,000 pounds, and in 1880 it was 107,500,000 pounds. As soon as the qualities of wool peculiar to New Zealand be-

come better known in the United States, American manufacturers will import these wools direct instead of obtaining them from London and other European markets. This method of purchase will of course be of manifest advantage to both countries, for when the people of New Zealand find a ready market for their wool in the United States they will be more likely to patronize American manufacturers than at present. If the duties on New Zealand wools were modified, the bulk of the trade which now goes to London would go to the United States. The people here want to exchange their raw products for articles from American workshops, but are obliged to purchase from European markets, because it is to be expected that they will buy such manufactured articles as they need from those countries in which they find a ready market for their own raw products.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Auckland, New Zealand, January 31, 1882.

[Inclosure No. 1.]

Specification of sample case Canterbury wools.

[Furnished to the United States consulate at Auckland, by the New Zealand Loan and Mercantile Agency Company, limited, Christchurch, Canterbury, New Zealand, January 12, 1882.]

No.	Samples.	Value Jan. 12, 1882.		No.	Samples.	Value Jan. 12, 1882.	
		Pence.	Cents.			Pence.	Cents.
		Per lb.	*Per lb.*	44		*Per lb.*	*Per lb.*
1	Merino, first	13	26	45	Leicester	7½	15
2	....do	12	24	46	....do	7½	15
3	....do	12½	25	47	....do	7½	15
4	Merino (wether), first	11½	22½	48	....do	7½	15
5	Merino (ewe), first	11½	23	49	Leicester rams	6½	13½
6	....do	12	24	50	....do	7½	15½
7	....do	12½	25	51	....do	7½	15½
8	....do	12	24	52	....do	7½	15½
9	Merino (ewe), second	11	22	53	Leicester ewe hogget	7½	15½
10	Merino (ewe), first	11	22	54	....do	7½	15½
11	Merino (ewe), second	10½	21½	55	....do	7½	15½
12	....do	10½	21	56	....do	7½	15½
13	Merino (wether), second	9½	19	57	English Leicester ram	8	16
14	Merino (hogget), second	9½	19½	58	English Leicester	8	16
15	Merino (hogget), first	10½	20½	59	Border Leicester ewe	8	16
16	Merino (ewe), first	10½	20½	60	Border Leicester ram	8	16
17	Merino (wether), second	9½	19½	61	Romney Marsh ewe	9	18
18	Merino (wether), first	13	26	62	....do	9	18
19	¼-bred hogget	10½	21	63	....do	9	18
20	¾-bred hogget	10	20	64	....do	9	18
21	¼-bred hogget	10½	21	65	Romney Marsh hogget	8	16
22	½-bred hogget	10½	20½	66	....do	9	18
23	....do	9½	19	67	....do	9	18
24	....do	10½	20½	68	....do	9	18
25	....do	9½	19½	69	Lincoln ewe hogget, 17-lb. fleece	7½	15½
26	....do	10	20				
27	....do	9½	19½	70	Lincoln ewe hogget, 15-lb. fleece	7	14
28	....do	10	20				
29	¾-bred hogget	8½	17½	71	Lincoln wether, 4-tooth, 16-lb. fleece	7½	15
30	....do	9	18				
31	½-bred hogget	9½	19½	72	Lincoln ewe hogget, 14-lb. fleece	7	14
32	....do	10	20				
33	x-bred hogget	8½	17	73	Lincoln ewe hogget, 18-lb. fleece	7½	14½
34	¾-Lincoln	9	18				
35	....do	8½	17	74	Lincoln ewe hogget, 22½-lb. fleece	7½	14½
36	x-bred hogget	9	18				
37	....do	8	16	75	Lincoln ewe hogget, 18½-lb. fleece	7½	14½
38	....do	8	16				
39	....do	8	16	76	Lincoln ewe hogget, 19-lb. fleece	7½	14½
40	Leicester	7½	15	77	Lincoln ewe, 23-lb. fleece	6½	13
41	....do	7½	15		Lincoln ram hogget, 24-lb. fleece	6½	12½
42	Leicester washed	11½	23				
43	....do	11½	23				

THE SILK PRODUCTS OF LYONS (YEARS 1880 AND 1881).

REPORT BY CONSUL PEIXOTTO.

In order to obtain as perfect a knowledge as possible of the silk produce of Lyons, the Syndical Chamber of Silk in this city make the most minute inquiries concerning the orders received by manufacturers and orders filled by weavers. Considering the great number of manufacturers, and, above all, the organization of the workmen, divided, as they are, into small bodies of two or three, working in thousands of small ateliers or work-rooms, the difficulty of attaining exactitude regarding their work is not small, and of course the result of research into their affairs can scarcely be more than an approximate valuation.

PLAIN GOODS, PURE SILK.

Articles.	1880.	1881.
	Francs.	*Francs.*
Faille and taffetas, black and colored	60, 000, 000	47, 000, 000
Satins	5, 000, 000	6, 000, 000
Striped velvet, &c	10, 000, 000	12, 000, 000
Taffetas and for umbrellas	10, 000, 000	8, 000, 000
Serge armure and for lining	8, 000, 000	10, 000, 000
Foulards	20, 000, 000	20, 000, 000
Striped taffetas, &c	100, 000	100, 000
Moiré antique and francais	400, 000	15, 000, 000
Furniture and church goods	1, 200, 000	2, 000, 000
Armure, surah, &c	10, 000, 000	40, 000, 000
Total figured goods, pure silk	125, 200, 000	160, 100, 000
Damask, armures, &c	20, 000, 000	15, 000, 000
Furniture damask and church goods	2, 500, 000	5, 000, 000
Satin, velvet, silk, and miscellaneous goods	2, 800, 000	4, 000, 000
Cravat goods	500, 000	2, 000, 000
Total	25, 800, 000	26, 000, 000
Total pure silk	150, 800, 000	186, 800, 000
Increase in 1881		35, 800, 000

SILK GOODS MIXED WITH COTTON, WOOL, ETC.

Articles.	1880.	1881.
	Francs.	*Francs.*
Satin, cotton tram, plain	80, 000, 000	70, 000, 000
Satin dyed in piece, plain	28, 000, 000	28, 000, 000
Velvet, plain	8, 000, 000	9, 500, 000
Velvet, figured, &c	4, 000, 000	3, 000, 000
Plush, hat and dress goods	7, 000, 000	10, 000, 000
Poplins, armures, Sicilliennes, woolen tram	1, 200, 000	600, 000
Figured stuffs, dress goods	10, 000, 000	4, 000, 000
Figured and plain goods for carriages	400, 000	300, 000
Church goods, plain and figured	2, 000, 000	2, 000, 000
Printed satins	300, 000	300, 000
Faille, serge, armures, &c	9, 500, 000	10, 500, 000
Foulard mossoul	3, 000, 000	3, 000, 000
Armures, surah and dyed	3, 000, 000	3, 000, 000
Silk goods, miscellaneous	4, 000, 000	4, 000, 000
Neckerchiefs, fichus, &c	1, 000, 000	800, 000
Figured stuffs for cravats	1, 000, 000	1, 000, 000
Umbrella stuffs	7, 000, 000	5, 000, 000
Pekins, striped satin	1, 000, 000	500, 000
Total	170, 400, 000	155, 500, 000
Decrease in 1881		14, 900, 000

SILK STUFFS MIXED WITH GOLD, ETC.

Articles.	1880.	1881.
	Francs.	*Francs.*
Plain stuffs, figured, pure silk or mixed silk, cotton, silver, or fine gold...	6, 100, 000	10, 000, 000
MISCELLANEOUS.		
Crêpe	10, 000, 000	9, 000, 000
Crêpe de chine	1, 200, 000	800, 000
Gauze	2, 000, 000	2, 000, 000
Grenadines	5, 000, 000	5, 000, 000
Tulle, plain	3, 000, 000	
Tulle, worked	800, 000	6, 000, 000
Tulle, figured	500, 000	
Lace, guipures, &c	1, 700, 000	3, 020, 000
Total	24, 200, 000	25, 820, 000
Increase		1, 620, 000
Church goods, military passamenterie	5, 000, 000	5, 000, 000
Fancy trimmings, beads, pearls, &c	13, 000, 000	11, 400, 000
Total	18, 000, 000	16, 400, 000
Total of entire produce	365, 500, 000	395, 120, 000
Total increase in 1881		29, 620, 000

These results coincide with the quantity of worked silk manipulated in the dyeing establishments, and that which passed through the condition house, namely: In 1880, 1,845,000 kilograms of silk were dyed, and in 1881 2,075,000 kilograms; then in 1880 2,207,096 kilograms were registered at the condition house, and in 1881 2,481,370 kilograms.

The information furnished by these different sources, concurring as it does with the researches made by the Syndical Chamber of Silk, proves that an important progress was realized in 1881 over 1880. This increase is due, as the table will show, to the group of pure silk goods, which in 1880 stood at 125,200,000 francs, rising in 1881 to 160,600,000 francs.

The silk and cotton or other mixtures, on the contrary, fell from 170,400,000 francs to 155,500,000 francs. Thus an evolution has taken place in Lyonese fabrics, the opposite of what has of late years been the normal state, when a constant diminution of silks and a rapid augmentation of mixed silk goods was registered.

The predominant character of 1881 was a marked return of fashion to fine stuffs, especially during the third trimester of the year; and this is noticeable in all the markets, French, American, English, &c. Faille and taffetas it will be remarked have not participated in this rise; the produce of this article which in 1879 was 90,000,000 francs fell to 60,000,000 francs in 1880, and to 47,000,000 francs in 1881.

The fact is that failles are ceding more and more every year to armure satinée, surah, crêpe de chine, &c., the production of which was only 2,000,000 francs in 1879, has increased to 10,000,000 francs in 1880, and to 40,000,000 francs in 1881; when, again, in the second semester of 1881 a new article to the modern market was brought into fashion by reviving the long-abandoned moiré antique and moiré francais which figures in the table above, at 15,000,000 francs.

A diminution will be noticed in the group of stuffs of silk and cotton mixtures, of satins, figured stuffs for dresses, and umbrella goods, insufficiently balanced by an augmentation of plain velvets and plushes, used for hats and dress trimming.

The figured and brocade stuffs composed of pure silk have maintained the figure of 1880, as well as those tissues of secondary importance, such as gauzes, tulle, net, crêpe, church goods, passementerie, &c.

The tendency to a returning demand for good stuffs was certainly favored by the low price of silk. Another characteristic of the past year's market was the inconstancy and variety of fashion, condemning the Lyonese manufacturer to invent novelty after novelty in rapid succession to meet the demand.

The result is quite a transformation in the style of workmanship in Lyonese factories. The large houses of Paris, London, and New York, uncertain as to the unforeseen variations of fashion, put off their orders till the last moment, so that, independent of the economy of production, necessitated more and more by foreign competition every year, rapid production has become one of the silk trade's essential conditions of existence.

Weaving by machinery thus imposes itself more and more on Lyons manufacturers, and the extent of machine-made goods gradually spreads itself over a larger and larger domain. Many fabrics, formerly supposed to be only possible to the painstaking manipulation of an expert weaver, are now manufactured solely by machine. It is in this direction that French manufacturers will have to move, if they would stand firm against the tide of foreign competition daily threatening to overtake them, and it will undoubtedly be owing to the just recognition given to the importance of machinery, wherever practicable, that American silk manufacturers will be enabled to rival all other competitors.

GEORGE D. M. PEIXOTTO,
Vice-Consul.

UNITED STATES CONSULATE,
Lyons, France, March 11, 1882.

STARCH MANUFACTURE IN THE ARGENTINE REPUBLIC.

REPORT BY CONSUL BAKER, OF BUENOS AYRES.

I am called to advise you of the establishment of a new industry in the Argentine Republic, one in which the United States have a special reason to be interested. I refer to the manufacture of starch. Up to the present time all the starch used in the country has been imported, a very large proportion of it coming from the United States. I understand that there have been previous attempts to establish this very important manufacture here, but, from lack of proper facilities, or the necessary skill, they have not been successful. The present venture seems, however, to be in the hands of parties who not only possess the prerequisites referred to, but also sufficient means to put the enterprise on a substantial basis.

Considering the amount of starch which is used in the Argentine Republic, one would suppose that there would be an open field for such a factory. The total importation last year was 705,199 kilograms, or about 1,590,000 pounds, the dutiable value of which in the Argentine custom-house was $90,232. It came from the following countries,* to wit:

Countries.	Quantity.	Value.
	Kilograms.	
Belgium	52,795	$10,446
Uruguay	59,910	6,862
United States	521,839	62,953
Holland	9,850	1,872
England	13,732	2,786
Italy	2,461	468
Paraguay	29,223	3,067
Unknown	15,389	1,778
Total	705,199	$90,232

* Custom-house returns of the Argentine Republic.

The factory is located at Monte Caseros, about 6 miles from the Great Western and 3 miles from the Compana Railway, and is distant 15 miles from Buenos Ayres. Singularly enough, its site is the famous battle-field on which the Dictator Rosas met his downfall, an event which was preliminary to the union and consolidation of the province of Buenos Ayres with the other thirteen provinces, now forming the Argentine Republic. The location, however, possesses no special conveniences, since it will require the necessary fuel and other supplies to be carted to it, and then the product to be carted to this market. It was selected because the required buildings were found there ready for use, being the remains of a former "saladero" or jerked-beef factory, which failed to be profitable.

The names of the proprietors are Messrs. Martinez, Rodriquez & Co. The mill was arranged under the special supervision of Messrs. Robinson & Son, of Oswego, N. Y., both of whom have had a life long experience in the manufacture of starch, and who are now under special contract with the proprietors for a year. The machinery is the most approved that is now in use in the United States, and was made at the Ames works of Oswego, the engine being a 40 horse-power. The capacity of the factory is 3,500 pounds of starch per day, and may readily be increased. This, however, by continuous running, would produce about 1,280,000 pounds a year, quite enough to supply the demand of the market.

A few days ago I visited the works by special invitation, in company with General Osborn, the United States minister, and a number of others interested in the enterprise; and after disposing of a grand open-air breakfast—a necessary preliminary in this country to the inauguration of all important public works—we had an opportunity of witnessing the mill in full operation. It seemed to be doing its work in a most satisfactory manner, and the quality of the starch thus far turned out is spoken of in very high terms. Certainly the samples, both of bleaching starch and "corn starch" (farina) which we examined were superior. How far this factory will interfere with the sale of American brands of starch, some of which are great favorites here, remains to be seen. One would naturally suppose that, having any quantity of the finest white corn at hand, and with good water and cheap labor, the native starch could be put in the market at much cheaper rates than that which is brought here from abroad, and which has to pay outward freights, charges, and commissions, and a specific duty of five cents on each kilogram (2.18 pounds), and one per cent. *ad valorem* additional on an official valuation of 11½ cents per kilogram. But then the Argentines have a peculiar preference for everything foreign, and it may be that the day when American starch will no longer rule the market of Buenos Ayres is still in the very remote future.

E. L. BAKER,
Consul.

UNITED STATES CONSULATE,
Buenos Ayres, February 4, 1882.

WATCH AND CLOCK TRADE OF NEW ZEALAND.

REPORT BY CONSUL GRIFFIN, OF NEW ZEALAND.

The introduction of American watches and clocks into New Zealand is comparatively of recent date. They have, however, become so very

popular and so generally in use that the trade in them bids fair to swell to large proportions.

These goods usually reach here by way of London instead of coming direct from the United States, and on that account I have no means of determining the exact value of their imports.

The reason given by the American manufacturers for not sending them direct, instead of by way of London, is the frequency of communication between the latter city and New Zealand. There has been, however, during the last few years a steady increase in the direct shipments of these goods from the United States to this colony, and there is reason to believe that these shipments will be still further increased in the near future.

The vessels which heretofore arrived in Auckland from the Atlantic ports of the United States came only at irregular intervals, and scarcely ever direct to this port; but since the establishment of several New Zealand lines of sailing vessels at Boston and New York last year, the communication between those cities and this port has been regular and direct.

The extent to which American watches and clocks are advertised in New Zealand is extraordinary. There is scarcely a jeweler's shop or toy store in any of the principal thoroughfares of Auckland, Wellington, Napier, Christchurch, Dunedin, and Invercargill that has not signs and placards conspicuously posted about the doors and windows, bearing the inscription, in large letters, "*American watches and clocks for sale.*"

Mr. Bartlett, a leading jeweler of Queen street, Auckland, said to me a few days ago:

> It is difficult to sell an English watch, and as far as the Geneva watches are concerned, they are being fast driven from the market. Everybody seems to want an American watch. I am not prepared to say that American watches are any better than other watches, but it is the fashion to have them. There is not a boy or a servant girl in the country who can raise five pounds who does not want to invest it in an American watch.

Mr. Bartlett, while acknowledging the popularity of American watches, expresses a decided preference for the old-fashioned hand-made watch, but frankly admits that his customers do not agree with him.

I give below a table showing the value of watches and clocks imported into New Zealand for each year since 1871:

Table showing the value of watches and clocks imported into the colony of New Zealand for each year from 1871 *to* 1880, *inclusive.*

Years.	Number of packages.	Value.
Year 1871:		
United Kingdom	315	$15,430
Australia	163	1,225
United States of America	303	4,840
Total	781	21,495
Year 1872:		
United Kingdom	455	18,440
Australia	269	18,865
United States of America	66	1,240
Total	790	48,545
Year 1873:		
United Kingdom	322	22,015
Australia	298	27,325
United States of America	625	6,515
Total	1,245	55,855

Table showing the value of watches and clocks imported, &c.—Continued.

Years.	Number of packages.	Value.
Year 1874:		
United Kingdom	510	$39,870
Australia	183	32,809
United States of America	976	16,150
Total	1,669	88,820
Year 1875:		
United Kingdom	566	48,465
Australia	207	7,319
United States of America	1,719	27,495
Total	2,432	83,279
Year 1876:		
United Kingdom	685	48,465
Australia	101	7,319
United States of America	2,216	27,495
Total	3,002	128,495
Year 1877:		
United Kingdom	421	46,715
Australia	81	37,470
United States of America	468	8,190
Total	970	92,375
Year 1878:		
United Kingdom	501	68,740
Australia	159	46,035
United States of America	603	11,280
Total	1,263	126,055
Year 1879:		
United Kingdom	516	80,260
Australia	103	38,885
United States of America	1,046	36,575
Total	1,665	155,720
Year 1880:		
United Kingdom	3,881	43,255
Australia	759	12,610
United States of America	4,984	18,340
Total	9,624	74,205

It will be seen from this table that a large number of watches and clocks arrived in New Zealand from Australia. These, of course, were manufactured either in Europe or in the United States, and shipped to Sydney and Melbourne for transshipment to the New Zealand ports. It will also be seen from the table that the heaviest importation of watches and clocks to this colony occurred in 1879, when the amount was $155,720. There was a marked falling off in the imports of these goods in 1880 on account of the financial depression in the colonies during that year. There was also a decrease in the quantity and value of all kinds of imports. The revival of trade, however, began in the spring of 1881, and has kept up steadily ever since. The value of both the imports and exports of New Zealand for 1881 was greater than that of any previous year in the history of the colony.

The customs authorities did not make a separate return for the value of watches until 1880, but included it under the general head of "watches and clocks."

The following tables show the value of each for that year:

Return of the value of watches imported into New Zealand for the year ended December 31, 1880.

Countries.	Number of packages.	Value.
United Kingdom	2,355	$31,395 00
Australia	581	11,165 00
United States of America	819	8,585 00
Total	3,756	51,145 00

Return of the value of clocks imported into New Zealand for the year ended December 31, 1880.

Countries.	Number of packages.	Value.
United Kingdom	1,526	$11,860 00
Australia	178	1,445 00
United States of America	4,165	9,755 00
Total	5,869	23,060 00

The New Zealand Government statistics for 1881 will not be published until next June, but, to judge from the returns of the value of the imports of watches and clocks for that year at Auckland and Dunedin, the two largest cities in the colony, there is reason to believe that the imports of these goods for 1881 have been more than double those of 1880.

The customs returns make no distinction between gold and silver watches, and I am therefore unable to give the exact value of each kind. The duty charged on them is the same, viz, 15 per cent. ad valorem, but Mr. Thomas Hill, the collector of the port here, informs me that the value of silver watches imported into New Zealand is in excess of that of gold, and I suppose that it would be safe to set down the number of silver watches sold here at fully four times as great as the number of gold watches.

Since I undertook the preparation of this report I have had frequent opportunities of examining the stocks of some of the best-known wholesale and retail dealers in watches, not only here, but in Dunedin and Christchurch, and it was gratifying to me to find among them such large assortments of American watches and chronometers. The most notable thing about the American watches, next to their cheapness, or economy of production, is their neat and tasteful appearance. Indeed, some of the American chronometers that I examined impressed me as being the most beautiful pieces of mechanism that I ever beheld in my life, and I will mention here that my opportunities for observing this kind of work have been considerable, and especially so during my residence as United States consul at Copenhagen, where I had the pleasure of paying frequent visits to the factory of Jourgensen, one of the most celebrated watchmakers in the world. I had also opportunities of studying the unique display of watches in the chronological collection of the Danish Kings in Rosenberg Castle at Copenhagen, and also the collection of watches in various other museums in Europe.

Although my attention has only lately been directed to the Waltham watches, I am of the opinion that they surpass all others in the nicety

of their construction. Another feature that cannot be commended too highly is that they are made with such perfect exactitude that the parts of all watches of the same class can be interchanged. These and other excellences have made them very popular in the Australasian colonies, but it must be borne in mind that this popularity is of recent date in New Zealand, and that at present it is confined principally to the cheaper classes of watches, and that there is still a very strong prejudice on the part of those who are considered competent judges here against American goods. Indeed, very few are even inclined to regard the gold and silver cases of American watches as genuine unless they have received what is called the Hall mark at London, which guarantees that they are made of gold or silver. On account of this prejudice all watch manufacturers in the United States are obliged to have their cases made in London, or else send them there for the purpose of receiving the Hall mark. Nearly all colonists understand the significance of the Hall mark, but only the progressive and cultured class place equal faith in the guarantee certificates of well-known American firms, that the accompanying cases are warranted sterling silver or 18-karat gold, United States Mint Assay. American cases of the Waltham Watch Company are, however, gradually forcing their way into this market, and I do not doubt that they will soon supersede those made in Europe.

The prestige given the American watches at the International Exhibition held successively at Paris, Sydney, and Melbourne has done much toward overcoming the opposition which the American manufacturer has to contend with.

Mr. Donald Manson, the manager of the Australian agency of the American Watch Company of Waltham, Mass., has recently made me acquainted with some of the difficulties he had to encounter in the introduction of the Waltham watches into this market. He describes the opposition to his company as stronger than that encountered in any other new field of labor. He said:

> The inherent belief which the New Zealander had in the old hand-made English lever watch was so strongly embedded that very few entertained any hopes of the company's products ever getting a foothold in this colony.

It was a matter of unremitting toil for years before he could induce the importers to purchase the company's watches. Indeed it would seem that nothing but a spirit of indomitable perseverance could ever have fought down so successfully the stronghold barriers of trade connections which the English and continental markets had established here.

The success which the Waltham watch achieved at the International Exhibitions at Sydney in 1879, and at Melbourne in 1880, was certainly of a triumphant character. Much praise had been bestowed upon the Waltham watch by the press of Europe and America, and it was well known that it carried off the gold medal at the Paris Exhibition of 1878, the highest prize bestowed upon the exhibitors of watches, and that it was given by eleven international jurors, only one of whom was an American, but this success, while very gratifying to Americans, was the means of strengthening the opposition to our watches at the Sydney Exhibition. Indeed, at Sydney the Waltham watch had to contend against the watches of six famous British manufacturers (including those of Victor Kullberg, T. Russell & Sons, and Nicole & Nillsen), two German, H. Lange & Sons at Dresden, and the Wurtemberg Watch Factory at Schwarzwald, and two celebrated French manufacturers, A. H. Rodanet at Paris, and G. Fribandeau, Besançon.

The commissioners unquestionably exercised great care, and after re-

peated tests by Prof. H. C. Russell, astronomer royal at the Sydney Observatory, awarded the only gold medal to the American Watch Company, and in addition thereto three special and four first prizes, one of the latter being an award for the improvement in cases, the number of artistic forms and designs used, the beauty and elegance of their finish, and for their new and indestructible method of enameling.

At Melbourne the Waltham Company had a much keener competition than at Sydney, but as at other places finally succeeded in distancing all their competitors, and received two gold medals—one for their preeminence in horological science, and the other for their superiority in art workmanship.

The Waltham Company thus far have not only produced a better watch than any of their competitors, but at the same time they have produced a much cheaper one. They have succeeded in a marked degree by means of their improved compensated balance in overcoming the difficulties of expansion and contraction occasioned by changes of temperature—difficulties in the way of accurate time keeping, which heretofore baffled the skill of the most eminent horologists of modern times. It is well known that a rise in the temperature adds to the length of the spring of a watch and thereby diminishes its elasticity; this change is occasioned by the expansion of the balance, which augments its moment of inertia. The elastic portion of a spring varies inversely according to the length and the time of the vibration of the balance. If the inertia is increased and the elastic portion of the spring weakened, the watch must necessarily go slower, but when there is a fall in the temperature the principle is reversed and the watch goes more rapidly.

It would not have been possible for the Waltham Company to overcome these obstacles without the application of machinery to the art of watch-making—an improvement upon the old method, due solely to American inventive genius, and to which the highest scientific authorities in the known world have rendered tribute ungrudgingly.

Some idea of the advantages derived from the use of this automatic machinery can be formed from the statement that the delicacy of construction of the mechanism invented by the Waltham Company is such that a micrometer which they exhibited at Paris measured the twenty-five thousandth part of an inch and might readily be divided under a lens into one hundred thousandth parts.

G. W. GRIFFIN,
Consul.

UNITED STATES CONSULATE,
Auckland, New Zealand, February 28, 1882.

AUSTRIAN TRADE WITH THE ORIENT.

REPORT BY CONSUL THAYER, OF TRIESTE.

In 1879 Mr. C. M. Schroeder, a gentleman of large experience, great sagacity, and excellent judgment, for many years a leading merchant of this city and local agent of the Austrian Lloyds Steamship Company, visited the principal ports of India to study the practicability of extending the operations of that company to the far East. The result is that the Austrian Lloyds, being handsomely paid by the Austrian and Hungarian Governments for carrying the mails, have now established two regular lines, which, during the present year, will run as follows:

On the first day of each month a large first-class steamship departs

from Trieste for Hong-Kong, touching both ways at the Red Sea ports, Bombay, Colombo, Penang, and Singapore; on the 12th of January, February, March, October, November, and December, the departures are for Calcutta, touching at the Red Sea ports and Colombo.

These lines are aided by the two governments with a twofold object. First, to turn the current of German Asiatic trade from Hamburg and Bremen through Trieste and Fiume; and, secondly, to open a foreign market for the rapidly increasing surplus of domestic products.

It is reported that the negotiations with the various north and south trunk lines of railroad have resulted in a tariff of freight rates, which has led to a German organization of merchants and manufacturers to forward their wares by the new route. A glance at the map shows that with low railroad charges Venice, Trieste, and Fiume must become the ports of transit to the East for the exports of a very large portion of Central Europe. Since the expulsion of Austrian influence and power from Germany and Italy the imperial government has really turned its attention to the development of its manufactures, its natural resources, and its trade, domestic and foreign.

The present minister of commerce, Baron Pino, was for some years governor of Trieste, and I have the honor of knowing him very well. He is energetic, and, in my opinion, able and skillful—able to comprehend the necessities of trade, and skillful to meet them—while of his good will there can be no doubt. In his office a mass of valuable reports on the commerce of the East has for some years been accumulating, some of which have been published, enough at all events to show that he need not go to work blindly. There is one on the practicability of developing an Indian trade in Austrian products, made by Capt. Heinrich Himmel, the result of his personal observations and inquiries, which presents divers points that strike me as worth condensing here.

I. The development of the foreign trade of China in Chinese hands has already become so great that the position of the once lordly oriental European houses is becoming daily more difficult; the Chinese coasting trade is now exclusively domestic, and that cunning people will soon become the sole exporters of its own products; it is extending its commercial relations Indiawards, and even now in Singapore and Penang no European house can take in Chinese products without the intervention of Chinese middlemen. The great European merchants, who for generations turned everything to gold that they touched, can now, at the extreme, hope for a profit of four per cent. on the capital invested.

II. Although it thus is clear that there is no opening for the establishment of great Austrian mercantile houses in the East, there is nothing to prevent the establishment and growth of a large trade in Austrian products with the native and other local merchants; for instance, in beer. It is well known that the best Austrian beer is equal to any, and, except perhaps to Englishmen, much preferred in the East to English ales. Two great Austrian breweries at one time ruled that market, but lost it through the folly of deteriorating the quality. The same is true of matches; but the market can easily be regained by sending none of inferior quality, and choosing small percentage on large sales, rather than the reverse. A very large trade in wines and liquors may easily be established, especially in the dark red heavy wines of Dalmatia. Samples should be sent, he adds, to the Austrian consuls at Aden, Bombay, and Penang; to Stipperger in Colombo; Cutter, Palmer & Co. in Calcutta; Brandt & Co. in Singapore.

There is now a large trade throughout India and China in Norwegian

butter, with which surely the excellent article from the Alpine districts of Austria, from Styria and Corinthia, can compete.

Cotton shirtings, white, colored, and printed, sell in great quantity in Bombay, Calcutta, and Singapore, and are now monthly furnished by North Germany, via Bremen, Hamburg, and London.

The very numerous articles of taste and comfort, in the production of which Vienna now rivals Paris, might find a large market, if of thoroughly good quality, and if freights to Trieste should be reasonably reduced. Captain Himmel in fact found during his tour no small amount of Austrian products which had found their way to the East via the river Elbe and Hamburg.

The captain's suggestions to the government and exporters confirm the multitudinous reports of United States consuls as to the only means of securing any large trade in Southern and Eastern Asia. They seem to be worth condensing here. In the main they are:

1. Reduction of freight charges by the railroad on all articles of export in transit.

2. Exportation of nothing that is not of prime quality.

3. Utter abandonment of the practices of sending abroad first-class samples and second-class wares, and of affixing high prices with the purpose of making reductions, as well as of all effort to sell poor goods of any sort at any price.

4. Price lists serve no useful purpose, and especially such as give prices only at the place of manufacture. They can only be of use when they include all expenses to the place of delivery; otherwise they go into the waste-basket. Trade can only be effected by samples, and woe to him whose merchandise proves inferior to his samples.

5. The views—prejudices, if you will—of the consumer in the matters of labeling and packing *must* be consulted.

6. Agencies with complete collections of samples must be established, at the fewest, in the ports of Bombay, Calcutta, Singapore, and Shanghai.

7. Unexceptionable references in London are a *sine qua non*.

While Captain Himmel was thus employed in the far East, Mr. C. Kallenberg was engaged in the commercial exploration of the lands bordering upon the Red Sea. Consequent upon his report to the ministry of commerce at Vienna has come the regular communication by the Lloyds Company's steamships between Trieste and the principal ports of those countries—a very important step, as it enables the Austrian exporter to enter into competition with his Italian neighbor, who, through the Rubattino steamship line of Genoa, was rapidly gaining control of the Red Sea commerce.

Herr Kallenberg confirms the common report of the great annually increasing demand in West Africa for European manufactures, and is of opinion that Austria, from her geographical position and the cheapness of labor, may export largely thither clothing of all sorts, including fezes, boots and shoes, hosiery, bedding, flannel, printed cottons and silk wares, beer and spirits, furniture, glass and porcelain, beads, trinkets and the like, stationery, cutlery, and in return, through competent agents, obtain at first hands from the interior vast quantities of valuable raw products, gums, hides, mother of pearl, fine woods, and so on, for her various industries. Commissioned by the Lloyds Company, Kallenberg revisited the scenes of his former explorations last year. From his report mainly I add a few notes upon places which seem to be of both value and interest.

On the east coast, Jedda (Jiddah), the port of Mecca, is still the most

important emporium of the Red Sea, owing to the trade with pilgrims. Its exports and imports in 1880 reached in the aggregate some 50,000,000 francs, a goodly proportion of which fell to the share of Austria. Assab is a small port, with no back country of value, which the Italians are endeavoring to raise into importance, vainly, in Herr Kallenberg's opinion, as both the Egyptian and the English (at Aden) interests are against it.

Hadeida, the port of the beautiful and fertile district of Yemen, on the other hand, is rapidly increasing, and its coffee trade places it already in the first rank of Red Sea ports. It is a place on which Austrian commerce, yet unrepresented, should fix its eye. On the west coast are two very important ports, Massouah and Suakim.

Massouah, in about latitude 15° north, is the principal seat of the West African export of hides, mother-of-pearl (from the Dahlak Archipelago), and various products of the interior, among which is coffee equal in quality, though not in appearance, to Mocha. Its trade is already important. The customs (at 8 per centum ad valorem) produced the Egyptian Government in 1879 some 5,000,000 francs. Should England allow Abyssinia to take possession of it, it would soon expand its commerce enormously, and become a grand center of distribution of European manufactures throughout Central Africa.

Suakim lies some 300 miles northwesterly from Massouah. It is, perhaps, hardly necessary to remind the reader that Khartum, chief seat of the Egyptian dominion on the Upper Nile, in latitude 15½ north, is the emporium of the eastern Soudon regions, where for generations the great commercial route to Cairo has begun; that Berber is about 3° further north, on the most easterly bend of the Nile, and at one of the points in all Nubia where the great river approaches nearest to the Red Sea; and that Suakim is a little north of east from Berber, and hardly 300 miles distant. It is obvious at a glance on the map that so soon as regular communication by steam was established through the Suez Canal, between Europe and the Red Sea, the current of the vast trade that followed the Nile route to Cairo and Alexandria, must be deflected eastward at Berber and take the short route to the sea at Suakim, and so it has proved. Freight is so much cheaper ($3 to $4 per camel load) from Berber to Suakim than to Cairo that the export of zeme, for instance, from that port has doubled in three years, and in 1880 amounted to 5,300 tons. Suakim already is almost the rival of Jeddah in commercial importance.

It is for the growing trade and transportation of these ports that Austria has now entered into competition.

During the many years that I have spent in Austria, I have seen a wise and prudent commercial policy taking root, making progress, and beginning to produce its legitimate fruits. The introduction of a decimal currency, making the gold piece of 8 florins the equivalent of the pieces of 20 lire, Italian, and 20 francs, French; of the decimal system of weights and measures; of a carefully considered protective tariff and its extension over all the provinces of the empire, Trieste and Fiume excepted, thus securing the home market for its domestic manufactures, and leading to a constantly increasing surplus for export; the development of the Lloyds Steamship Company by liberal payments for mail service, until now the Austrian merchant has regular steam communication under his own flag to every important port between Trieste and Shanghai—all this has come under my own observation, and within the next six weeks, I shall see the experiment made, which has for several years been waiting only for an auspicious moment for trial, that of direct

communication between Austria and the United States, Brazil, and the states on the Rio de la Plata by means of steamships under the Austrian-Hungarian flag.

The trade statistics of Trieste, as the only important port of the Austrian half of the empire, may in some sort be taken as an indication of results of the last twenty years' commercial policy, the more because these statistics are not confined to the transactions of her merchants, but embrace, also, all merchandise that passes the town in transit. In the few illustrations below, taken from these statistics, it is to be noted that in 1865–'66, large exports of the Austrian states proper passed through Trieste to the countries east of the Adriatic, that now pass over the Hungarian railroads. Note also that the figures are strictly confined to trade between Trieste and non-Austrian-Hungarian countries. The quantities are given in metrical quintals.

Articles.	Imported.	Exported.
	Quintals.	*Quintals.*
Sugar, refined:		
1866	57,000	32,000
1880	1,039	381,087
Steel:		
1865	556	15,345
1880	133	28,246
*Rags and paper rags:		
1866	323	28,796
1880	1,352	7,163
Paper:		
1866	2,675	34,000
1880	9,468	84,675
Glass-wares:		
1865	7,801	23,230
1880	10,688	46,629
Cotton, raw:		
1865	98,447	830
1880	444,237	57,150
(From the United States only 5,292.)		
Cotton fabrics and yarns:		
1865	14,803	28,943
1880	20,300	47,422
Hides and skins of cattle, calves, sheep, and goats:		
1865	15,576	5,451
1880	58,093	14,424
Leathers of the same:		
1865	1,080	2,981
1880	9,607	2,595
Fabrics of the same:		
1865	27	1,471
1880	77	1,387

*Trieste sent to the United States, 1866–'70, five years, 16,560 bales rags, an average of 3,312 bales per annum. In 1880, the total was 940 bales, and in 1881 it fell to 88 bales.

These few articles are sufficient to illustrate the increase in importation of foreign, and the comparative decrease in exportation of domestic raw materials, and therefore indicate increased manufacturing production. If the annual tables of Trieste commerce for 1881 had been received in season for this paper, the figures would have been more forcible.

Austria now largely produces manufactures for export. She has her own steam marine to take them to market. The next great step is to make them known, to advertise them, and this it is proposed to do effectually during the present year.

A hundred and ten years before the first voyage of Columbus to America, that is, in 1382, the little city of Trieste, in like danger from Turk and Venetian, craved and obtained for herself and her scanty strip of territory the protection of the Austrian ruler. In this year, therefore, the semi-millennial anniversary of that act, its celebration, after much discussion, has taken the form of an industrial exhibition, in which all the

provinces of the Austrian half of the empire, under the sanction and sympathy of the imperial and royal government, with alacrity take part. It is to be exclusively a national exhibition. There is no expectation of making, nor will any attempt be made, as I understand, to rival the splendid show of that at Milan last year; but it is hoped and believed that Austria will demonstrate her ability to compete with any nation, both as to quality and price, in large classes of those necessities and comforts of life that make up the staples of commerce.

Whoever in late summer has visited the noble watering-places and Alpine resorts of Central Europe must have been struck by the multitudes of European and native residents of oriental cities, even "to Cathay and Farthest Ind," who come thence in search of health, or to escape the terrors of climate. The exhibition is to open in August, and will be in full operation when those myriads of strangers, representatives of all the East, will be setting their faces homeward.

It is a shrewd and politic movement. The merchant of Smyrna, Cairo, Bombay, Colombo, will see for himself what Austria can sell him, inform himself upon qualities and prices, and at the Lloyds offices can calculate to a nicety the cost of freight and the dates of delivery.

Under the instructions of the State Department United States consuls of late years have been studying the problem of extending American export trade in the far East. Here, now, is a new competition for that trade, and the Trieste exhibition will yield the best possible opportunity for American experts to examine the questions of quality, prices, and freights, upon which the success of the competition depends.

As to the commerce of Trieste proper, that is, the buying and selling of her merchants, experience thus far does but confirm the correctness of my dispatch No. 367, of September 30, 1880. If I should retouch the picture there presented it would be but to deepen the shadows. The tables of imports and exports at this port for 1881 will, it is true, show a considerable augmentation of both, but the increase is, in fact, confined to merchandise in transit, and, for any benefit to the local merchant, might have been as well moved via Venice as at the new harbor outside the town of Trieste.

The incubus that has seated itself upon this city's commerce is the monopoly of the Southern (Vienna-Trieste) Railroad Company. While the Hungarian Government is most actively furthering the elevation and prosperity of Fiume, the Austrian Government has allowed the term to pass, during which, by the contract with the Southern company, it could have chartered a competing road, and without such a road Trieste must inevitably lose her comparative commercial rank. It has gone farther; while neglecting to charter or construct such a road it has fulfilled its treaty stipulations with the Italian Government and constructed its portion of the Ponteba road, which brings large portions of its own territory into nearer and more favorable connection with Venice than with Trieste.

A few sanguine souls, however, now find a ray of hope for the future in the following facts, provided the government finds that it can and decides that it will take advantage of them:

The Prince Rudolph Railroad, connecting with the Bohemian and German lines, comes down south, and is lost somewhere in the mountains of Styria, thus being a mere tributary to the South and Ponteba roads. As its bonds are guaranteed by the state, it is a constant expense of some three or four millions of florins per annum.

The Istrian road is a purely military connection between the Southern road at Divaia, some 25 miles east of Trieste, and the great naval sta-

tion, Pola. It has neither freight nor passenger traffic of any account, and is also a great annual expense to the state.

It is now argued—

1. That a prolongation of the Rudolph road to Dinaca and a branch from the Istrian road to Trieste, with an independant station there, thus giving the Rudolph line its own approach to the sea, would render it at once remunerative.

2. That a prolongation of the proposed branch of the Istrian road to the St. Peter-Fiume branch of the Southern road, some half a dozen miles only, would give Trieste a new and independent connection with the Hungarian system, and so secure to her a competing line both to the north and the east.

3. That the saving in the deficit for a period of about twenty years will cover the entire expense of the proposed connections; and,

4. That the terms of the contract with the Southern company do not destroy the right of the state to construct them.

Of course the whole power of that great corporation is, and will be, brought to bear against this consummation so devoutly to be wished by Trieste, and the Rothschilds are rich!

ALEXANDER M. THAYER,
Consul.

UNITED STATES CONSULATE,
Trieste, January 24, 1882.

STAFFORDSHIRE POTTERIES.

REPORT OF CONSUL LANE, OF TUNSTALL, ON THE EARTHENWARE TRADE OF STAFFORDSHIRE, AND THE WAGES OF THE POTTERS.

A comparison of the digest of invoice book with the corresponding quarter of the previous year, will disclose a decided falling off in the exportations to the United States, the decrease being $229,319.66. This large decrease is readily traceable to the potters' strike which was inaugurated on the 11th of November, 1881, and continued until about the close of the year. This strike created an almost entire suspension in the manufacture in this district of earthenware, but did not affect China and fancy goods. Many of the leading manufacturers, however, were so well stocked, evidently in anticipation of a strike, that the exportations did not diminish so rapidly nor so far as I had expected; indeed, the manufacturers had a most decided advantage in the situation, not only on this account, but also on account of the season of the year in which the strike was inaugurated. This latter advantage had appeared to me so unmistakable in itself that in my annual report I stated that I did not apprehend that any strike would occur until the opening of the spring. The result shows that the workmen made a serious mistake, inasmuch, as after nearly two months of fruitless idleness, and in many cases suffering, they were forced to resume work at the old prices, with one or two exceptions, wherein, I believe about half the advance claimed was granted.

In this connection it may not be out of place to communicate to the Department some of the evidence which came out in the controversy, as to the wages actually earned by workmen in the different branches of the potting industry. I inclose a statement on this subject taken from the Pottery Gazette. It will be seen that this statement is made

by the chairman of the Manufacturers Association, and embraces fifteen manufacturers, making the total average per man per week, £1.15.10. It was, and is, claimed, however, by the workmen, that this average is too high, and I have before me a statement furnished by one of the largest manufacturers here, of the wages paid by him, of which the total average amounts to £1.11.0 per man per week. This, however, does not include printers' wages, but as the average of the latter is only £1 7*s.* 1*d.*, this would increase slightly the difference between the two statements. I trust these statements will enable manufacturers and others interested in the United States, to arrive at an approximately correct estimate of the cost of productions of earthenware in this country, so far as labor is concerned.

I have previously reported that I believed the manufacturers here were conducting their American trade on a very small margin of profit; nevertheless it is impossible to overlook the fact that they almost universally seem to be doing a prosperous business, and when we take into consideration the fact that the United States market keeps them employed about two and a half days each week, as a general estimate, it is difficult to believe that their profits are gathered exclusively, or even chiefly, from customers other than those in the United States; and this view is emphasized by the fact that the home trade is still unquestionably bad. There have been several works built in the district during the past year, another fact going to show that the manufacture of earthenware is still a profitable industry. On the other hand, since the strike was ended there has been an increase in discounts on plain goods of 2½ per cent., and manufacturers still insist that American prices are ruinously low.

My own opinion is from all the information I can gather, that they are yielding reasonable, but not large profits.

EDWARD E. LANE,
Consul.

UNITED STATES CONSULATE,
Tunstall, February 24, 1882.

[Inclosure in Consul Lane's Report.]

STAFFORDSHIRE POTTERIES—THE LATE STRIKE.

[From the Pottery Gazette of January 2, 1882.]

The protracted conflict between capital and labor, which commenced at Martinmas, has fortunately now terminated. With a firmness which astonished very many who hoped and expected the employers to be in a yielding mood, they reaffirmed most emphatically their inability to grant the demands of the men, or to arbitrate upon the very exacting terms proposed by the representatives of the operatives. It is satisfactory to know that throughout the strike a good feeling has existed. We have all along felt the justness of the master's position, as we have from month to month expressed. Many of the masters have advanced a week's wages to the operatives, and this has enabled them to spend Christmas with far more enjoyment than they otherwise would have. It is lamentable, however, to have to state that the holidays have not been marked by any prominent evidence of sobriety on the part of the operatives. The sympathy of the trade has been in general with the manufacturers, and in order that dealers throughout the country may see that their case was rightly based, we reprint the following table of earnings which appeared in the Staffordshire Sentinel, and furnished by Mr. Edwin Powell, of Messrs. Powell, Bishop & Stonier:

HANLEY, *December* 23, 1881.

SIR: The manufacturers have no wish to prolong the correspondence on this matter, but they desire me to say with respect to Mr. Owen's assertion that "it is not true that we stipulated for the limitation of apprentices to be dealt with in any form," which appeared in your issue of the 22d instant, that the ovenmen's deputation from all towns, except Hanley and Burslem, distinctly stated to the committee on Wednes-

day morning that they should require that that question be submitted to the arbitrator in the present dispute.

With regard to Mr. Bloor's letter commenting unfavorably on the statement of wages which appeared in Mr. Ackrill's letter of December 16, I think a sufficient answer will be the publication of the following details, namely:

Average net earnings per week, after all deductions for attendants, &c., of the workmen employed at fifteen manufactories.

	Flat-pressers.			Dish-makers.			Cup-makers.			Saucer-makers.			Handbasin-makers.			Hollow-ware pressers.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
No. 1	1	11	10	1	11	0	2	3	0	women			with dishes			1	10	0
No. 2	1	5	7½	1	7	6	3	0	0	1	4	9	1	13	6	1	11	5
No. 3	1	10	3	1	7	7	women			1	10	0	1	7	0	2	2	5
No. 4	2	0	0	2	0	0				1	10	0	2	5	0	1	18	0
No. 5	1	7	7	1	19	11				1	10	10	2	4	11	1	18	3
No. 6	1	6	0	3	0	0	1	9	0	1	11	0				1	12	0
No. 7	1	9	11	1	10	6	women			women.			1	12	10	1	12	0
No. 8	1	16	0	1	11	0							1	16	9	1	10	5
No. 9	1	9	9	1	16	7	1	8	7	1	8	6	1	17	6	1	13	2
No. 10	1	17	6	1	10	0	2	0	0	1	19	2				1	19	0
No. 11	1	5	3	2	8	0	1	6	5	1	5	8	2	7	8	1	12	4
No. 12	1	10	9	3	0	0	2	0	0	2	4	0	3	8	4	1	7	3
No. 13	1	18	0	2	5	0	3	9	0	1	15	0	1	12	0	1	10	0
No. 14	1	13	0	2	12	6	1	13	0	1	18	6	1	15	0	1	15	0
No. 15	1	15	8	1	16	6	women			1	15	10	1	18	8	1	12	10
Totals	23	17	1½	29	16	1	18	9	0	19	13	3	23	19	2	25	4	6
Averages	1	11	10	1	19	9	2	1	0	1	12	9½	1	19	11	1	13	7½

	Hollow-ware presser jiggers.			Printers.			Ovenmen.			Saggar-maker.			Mold-maker.			Turner.			Handler.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
No. 1	none			1	10	6	1	7	6	1	11	8	1	17	0	1	11	6	1	13	6
No. 2	2	11	3	1	4	1½	1	8	11	1	10	6	1	16	8	1	10	3	1	4	16
No. 3	2	0	10	1	0	1	1	7	6				2	10	3	1	7	5	2	0	10
No. 4				1	7	0	1	7	6	2	5	0	2	5	0	1	10	0	1	10	0
No. 5	1	15	5	1	9	6	1	13	0				1	15	0	2	0	7	1	11	3
No. 6	2	5	0	1	7	0	1	8	0	1	7	0	2	7	0	1	16	0	2	0	0
No. 7	2	2	0	1	9	2	1	9	10	1	19	10	1	11	6	2	0	7	1	10	3
No. 8	2	0	0				1	7	6	contract			2	9	4				1	3	6
No. 9	2	12	2½	1	5	4	1	7	6	1	16	8	2	4	0	1	7	8	women		
No. 10				1	8	0	1	7	6	1	12	0	1	14	0	1	16	0	2	2	0
No. 11	2	5	4	1	6	0	1	8	6	1	10	2½	2	4	6	1	11	0	1	12	6
No. 12	4	5	0				1	10	0	1	10	0	2	4	7				1	4	10
No. 13	2	2	0	1	11	3	1	7	6	2	10	0	2	3	0				1	19	0
No. 14	2	19	6				1	7	6	1	11	6	2	14	6				2	13	6
No. 15	1	17	9				1	7	6				1	17	11				women		
Totals	28	16	3½	14	17	11½	21	5	9	19	4	4½	31	14	3	16	11	0	22	10	10
Averages	2	8	0½	1	7	1	1	8	4½	1	14	11½	2	2	3½	1	13	1	1	14	8

Average net earnings per man per week, all deductions for attendance and other purposes being deducted:

	£	s.	d.
Of a flat-presser	1	11	10
The like of a dish-maker	1	19	9
The like of a cup-maker	2	1	0
The like of a saucer-maker	1	12	9
The like of a handbasin-maker	1	19	11
The like of a hollow-ware presser	1	13	7
The like of a hollow-ware presser jigger	2	8	0
The like of a printer	1	7	1
The like of an ovenman	1	8	4
The like of a saggar-maker	1	14	11
The like of a mold-maker	2	2	3
The like of a turner	1	13	1
The like of a handler	1	14	8
	23	7	2
The total average per man per week is	1	15	10

The fifteen manufacturers represent all markets of the potting trade, and in the case of each separate branch the figures show the average of the wages earned at each of the fifteen manufactories.

I think, therefore, that it was not at all misleading for the thirteen branches to be averaged as appeared in Mr. Ackrill's letter, giving £1 15*s.* 10*d.* per man as the average of the men in all branches at the said manufactories.

Truly yours,

EDWIN POWELL,
Chairman of the Manufacturers' Association.

RUSSIA'S MANUFACTURING INDUSTRIES.

REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.

Mr. Matthaei's article on Russia's industry continues to appear in the Russian Review, and having already sent extracts therefrom bearing on the mining and textile industries of Russia in 1879, I now forward a tabular statement of various manufacturing industries during that year.

The data emanate from the ministry of finance, and, although the most accurate obtainable, are doubtless in many instances far from being full and complete.

In many branches of industry it is impossible to obtain any statistical data, owing to the isolation of the factories and the lack of interest in statistical information which prevails in this country.

A glance at the table shows that with the exception of bristle and feather sorters, morocco and chamois leather, potash, tallow-boilers and candle-makers, and wax boilers and bleachers, all branches have increased during the twelve years from 1867 to 1879, many making, under the protective influence of high duties and an awakening sense of commercial enterprise, comparatively enormous progress. The totals show how small and unimportant Russia's industry is, the total value of the products of some forty odd branches of industry being, according to the official returns in 1879, but 91,597,267 francs—an amount equaled, if not exceeded, by the business of the three largest New York merchants.

It is nevertheless interesting to see that Russia's trade is progressing, and the reports for 1880 and 1881, which will soon appear, will doubtless show that her progress since 1879 is still greater.

Many of the industries are of so recent birth that a comparison with former years is impossible, but wherever possible it has been done.

Proceeding to the examination, we find that the manufacture of albumen, asphalt, and axle-grease are all industries in the first stage of development, and up to 1879 of little or no importance. The manufacture of bast matting from the linden tree plays quite a role in some districts, and the export in some years has reached 2,000,000 pieces. The whole industry depends on hand labor, and consequently absorbs more individual workmen than many more important industries.

Russia's wealth in animal bones, coupled with a limited home demand, renders a large export of bone dust possible, notwithstanding an export duty of 10 copecks per pood. Production in 1879 about 1,218,039 poods.

Although brick-kilns are scattered all over Russia, the production—about 750,000,000—and consumption are, by reason of the country's wealth of timber, by no means in proportion to the population. Wooden buildings are the rule and brick the exception, nor do the disastrous and constantly-recurring fires seem to have much effect in enlightening the people.

The bristle and feather sorting trade is of no great importance, andhas made no progress during the twelve years. Production uncertain.

In cabinet and joiner work the introduction of labor-saving machinery has greatly helped to develop this industry, the most important article being parquet floors.

The cement trade has greatly increased, and with more protection in the tariff would have increased still more.

The manufacture of dyes and chemicals is a comparatively youthful trade in Russia, the greater portion of the country's need being supplied from abroad. The trade is, however, growing and has greatly increased during the past twelve years.

The manufacture of corks and wooden wares, such as shoe-pegs, lacquered wares, &c., is a widespread and growing industry.

The consumption of cosmetics is large in Russia, and her domestic factories, though having to contend with a strong prejudice for foreign products, have attained considerable dimensions.

The manufacture of earthernware is chiefly a house industry—few, if any, of the potteries being of any considerable size. The manufacture of faience and porcelain wares has greatly increased, though the scarcity of skilled laborers is a serious bar to progress. The consumption of faience is greater than that of porcelain, owing to the difference in price and the better protection afforded the former branch by the tariff.

Russia's wealth in sheep and fur-bearing animals, together with climatic conditions, rendering furs a matter of necessity, have given the trade of dressing raw skins a development beyond that of other countries.

The chief article, lamb-skin, is dressed more largely in the governments of Vladimir, Odessa, Vologda, and Kasan. It is to be regretted that the furriers proper have not been included in the statistics of this branch.

The manufacture of glass has made great progress, the largest and greatest number of works being found in the government of Vladimir. The large amount of animal bones of all kinds has naturally encouraged the manufacture of glue, although the trade is carried on on a small scale. The production of lime and gypsum has greatly increased, and is probably much larger than that indicated by the figures given.

The production of horn wares is carried on on a very small scale, but furnishes during the long winter months occupation to many hundreds of peasants.

The manufacture of ink, being largely a house and not a factory trade, is beyond the reach of statistics, and beyond all doubt much greater than the amount given.

The manufacture of lead pencils is but little developed. The graphite used, although Russia produces an excellent article, is almost exclusively imported; the wooden case is made in Russia, but the article produced is of much inferior quality to that made abroad.

The manufacture of leather wares is a branch of industry well developed in Russia, one constantly growing and showing a disposition to adopt all the newest improvements in labor-saving machinery.

The number of match factories is great in Russia, but generally speaking their individual capacity is small. The quality is good, but there is nevertheless a large import from Austria, Sweden, and Finland.

The immense wealth of Caucassia and other southern provinces of Russia in naphtha has called the refining industry into being, particu-

larly since the Russian petroleum, whilst yielding but 30 to 40 per cent. illuminating fluid, is very rich in lubricating ingredients.

Refining mineral oil is a new industry in but the first stages of development, but one progressing with giant strides each year, and threatening to become in Central Europe the successful rival of the American trade. Production, 902,000 poods in 1879.

The consumption of vegetable oil is a very large one in Russia, since during the long fasts in this country food is prepared almost exclusively with oil, in addition to the ordinary consumption, and, moreover, large quantities are continually burnt on the altars and before the images of the saints, the latter articles being indispensable in every Russian household. Although there are some oil factories in Russia technically as advanced as any in the world, the oil-presses throughout the country, generally in the hands of peasants, are exceedingly primitive, and work with an immense waste of raw material and power. Russia oil-cake is largely exported abroad, where they are subjected profitably to a second pressure. The trade has greatly increased, and the actual production is doubtless far beyond the amount given. Production in 1879, about 1,320,000 poods.

The large annual export of rags, notwithstanding an export duty of from 20 to 45 copecks per pood, shows that the Russian commands a much cheaper raw material than the foreign paper industry; the protective duty on paper and the depreciated value of Russian currency forming also able coadjutors in the development of this trade.

Notwithstanding the cheapness of rags, wood pulp is largely employed, Finland taking the lead in this trade. The paper-mills of St. Petersburg are the largest. The finer sorts of paper are imported, but the trade is making great progress. There are also a great number of industries working up pasteboard, &c., the most important of which is that producing the so-called fire-proof roofing material. The development of this industry is a consummation devoutly to be wished, since the annual losses from fires exceed $50,000,000.

Formerly the manufacture of potash was of great importance for Russia, but since wood has become more valuable as fuel this industry has declined, the almost universal employment of soda in the manufacture of soap contributing also to the decline of the potash trade. Production in 1879, about 184,000 poods.

The manufacture of rubber goods, though confined to but three factories, is a most flourishing industry, whose annual production exceeds 5,000,000 roubles.

The annual production of saltpeter is about 60,000 poods, and is a trade of no great importance.

In consequence of Russia's wealth in timber the number of saw-mills is great. The value of the production, as given in the accompanying table, by no means represents the full value of Russia's wood production, her annual export alone being over 30,000,000 roubles, whilst the value of that consumed at home is still greater. Only the larger and more important mills have been registered, it being almost impossible to ascertain the number and importance of the many private mills scattered over the country, the most important mills being situated in the vicinity of export harbors. For ship and other building timber Rija is the chief place of export, this city having 15 large steam-mills. Archangel is another important harbor for exporting wood.

Soap-boiling, the chief seat of which is Moscow, is an important and growing industry in Russia, whose products are almost exclusively consumed at home. Production, about 2,200,000 poods in 1879.

Among those branches which work up raw tallow, the manufacture of stearine candles takes the lead. The number of factories is limited, but the production in 1879 was over 1,000,000 poods of candles, and 150,000 poods of oleine and glycerine.

The production of tar and turpentine has increased, notwithstanding the decrease in forests and the advance of the price of wood. The chief part of the raw material is obtained from stumps and stems remaining after the felling of a forest.

Tallow-boiling is an old Russian industry; and although it has greatly retrograded, it is still an important industry. The export of tallow has greatly decreased, owing, it is alleged, to an increased home consumption and the cessation of the irrational method of slaughtering whole herds of cattle; but the production has decreased at a more rapid rate than the consumption has increased, as is seen by the large imports of American tallow. Production in 1879, about 2,000,000 poods. The manufacture of tallow candles is largely a home industry, and one which is largely losing ground from the increased use of stearine candles and petroleum. Although the number of works is large, the individual production is small. Production in 1879, about 500,000 poods.

Tanning is one of the most widely spread and best developed of Russian industries, being represented in fifty-eight of the sixty Russian governments, and working up in 1879 more than 7,000,000 hides (43,000 poods), and 741,000 goat and lamb skins.

The largest portion of varnish consumed in Russia is imported from abroad, yet this branch of trade is progressing, and with more favorable legislation would make still greater progress.

Although the finer sorts of wall paper are chiefly imported, the Russian works turn out a very good article, and are annually increasing in importance, the production in 1879 being nearly 8,000,000 pieces.

Wax boiling and bleaching—in contrast to most Russian industries—has fallen off greatly during the last twelve years, both in the number of works and in the amount of the production. The chief seat of the industry is Moscow, and the production in 1879 was 33,000 poods.

The great consumption of wax candles in Russian churches has a great influence on this industry, which keeps pace with the increase of the orthodox population. Most of the candle factories are the property of monasteries and churches, the profits of the trade going to swell the incomes of these institutions. Only those governments where Catholics or Protestants predominate are poor in wax-candle factories. The total production in 1879 was 118,000 poods.

EDGAR STANTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, January 9, 1882.

[Inclosu.e in Consul Stanton's report.]

Statement of various manufacturing industries of Russia.

Articles.	Number of works.		Increase or decrease.	Number of persons employed.		Increase or decrease.	Value of production.		Increase or decrease.
	1879.	1867.		1879.	1867.		1879.	1867.	
			Per ct.			*Per ct.*	*Roubles.*	*Roubles.*	*Per ct.*
Albumen	7	.....	.....	168	.....	.....	79,000	.....	.....
Asphalt	3	.....	.....	192	.....	.....	317,500	.....	.....
Axle-grease	4	.....	.....	107	.....	.....	617,700	.....	.....
Bast mats	90	.....	.....	5,380	.....	.....	638,580	.....	.....
Bone-dust	43	22	+ 95	657	195	+237	1,127,572	292,774	+285
Bricks	3,217	2,166	+ 48.5	33,404	.....	.....	9,740,822	4,622,667	+117
Bristle, horse hair, and feather serters.	43	34	+ 26.5	847	1,012	− 16.3	1,123,945	1,448,388	− 22.4
Cabinet-joiner works	191	.....	.....	3,264	.....	.....	2,632,498	.....	.....
Cement	7	3	+133	1,384	260	+432	527,360	121,200	+327
Chemicals and dyes	162	96	+ 68.7	4,281	2,511	+ 70.5	6,578,636	3,959,021	+ 66.6
Corks and woodenwares	66	.....	.....	1,858	.....	.....	1,698,770	.....	.....
Cosmetics	27	27	.....	617	635	− 3	2,450,035	1,189,375	+160
Earthenwares	636	431	+ 47.5	2,221	1,335	+ 66.5	655,064	369,745	+ 72.2
Faience and porcelain wares.	120	59	+103.3	8,749	3,504	+149.7	3,395,089	1,349,414	+151.6
Furriers	551	.....	.....	3,285	.....	.....	3,231,519	.....	.....
Glasswares	202	145	+ 40	14,480	10,138	+ 43	7,658,879	3,583,178	+112
Glue-works	160	102	+ 57	680	552	+ 25	703,927	152,745	+361
Gypsum and lime	256	154	+ 66	2,618	880	+200	2,468,703	486,552	+407
Hornwares	3	.....	.....	51	.....	.....	6,940	.....	.....
Ink	1	.....	.....	11	.....	.....	22,000	.....	.....
Lead pencils	5	.....	.....	225	.....	.....	145,000	.....	.....
Leather wares	45	.....	.....	1,757	.....	.....	3,539,450	.....	.....
Matches	239	85	+181	5,249	2,214	+137	1,802,090	488,421	+269
Mineral oils	14	.....	.....	383	.....	.....	2,248,600	.....	.....
Morocco and chamois leather.	15	114	− 87	82	1,974	− 96	18,500	2,231,321	− 99
Oil	2,708	1,903	+ 42.3	8,606	6,454	+ 33.3	6,769,758	2,408,247	+181.1
Paper-mills	163	158	+ 3	10,945	9,527	+ 19	10,703,082	5,757,681	+ 92
Pasteboard, &c	34	.....	.....	1,380	.....	.....	2,479,766	.....	.....
Potash	153	206	− 25.7	778	1,298	− 40	341,106	455,982	− 25.2
Rubber goods	3	2	+ 50	2,337	418	+459	5,859,750	910,006	+543.9
Saltpeter	48	85	− 43.5	1,563	2,851	− 45	389,755	261,511	+ 49
Sawn wood	397	179	+122	8,652	3,556	+142	13,900,019	3,886,798	+235
Soap-boilers	11	16	− 31	2,167	2,137	+ 1.4	11,187,630	7,337,642	+ 52.5
Stearine candles	388	230	+ 47	1,509	1,006	+ 50	9,059,131	2,949,670	+207
Tar and turpentine	1,101	669	+ 64.5	2,934	1,384	+112	1,131,750	428,108	+164
Tallow-boilers	509	797	− 36	3,852	6,992	− 45	10,654,626	12,967,629	− 18
Tallow candles	487	597	− 18.4	1,524	1,872	− 18.6	3,156,600	4,654,394	− 32.2
Tanneries	3,409	2,731	+ 24.8	21,583	13,804	+ 68.8	47,822,300	18,563,958	+188.6
Varnish	37	42	− 12	384	300	+ 28	1,717,120	661,376	+160
Wall paper	28	23	+ 22	1,297	854	+ 52	1,150,100	571,318	+101
Wax boilers and bleachers.	61	100	− 39	274	457	− 40	698,731	1,118,713	− 37
Wax candles	177	117	+ 54.5	894	563	+ 59	2,725,131	1,623,785	+ 67
Total	15,821	11,293	+ 40	162,624	78,773	+106.6	183,194,534	84,848,669	+116

COMMERCE OF RUSSIA.

REPORT BY CONSUL-GENERAL STANTON, OF ST. PETERSBURG.

Herewith I have the honor to transmit a short *résumé* of the commerce of Russia during 1880, which has just appeared in the St. Petersburg Gazette.

EDGAR STANTON,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
St. Petersburg, January 16, 1882.

[Inclosure.]

The result of Russia's trade in 1880 was worse than in 1879, in which year the amount of business done decreased, in comparison with 1878, but 1,380,000 roubles

($690,000), or 0.11 per cent., whereas the business of 1880, as compared with 1879, decreased 76,800,000 roubles ($38,400,000), or 6.16 per cent.

As in the preceding year, the decrease occurred only in trade across the European frontier, which fell off 85,000,000 roubles ($42,500,000), 7.20 per cent.

With Finland and Asia, as in 1879, trade increased respectively 5 and 4 per cent.

[In millions of roubles.]

Exports and imports.	1880.	1879.	1880.	1879.
Total value of business done			1,170.12	1,246.92
Composed of—				
I. 1. Exports of merchandise	498.67	627.76		
2. Imports	622.81	587.71		
Total merchandise			1,121.48	1,215.47
II. 1. Exports of precious metals	28.78	10.18		
2. Imports	12.39	14.77		
Total precious metals			41.17	24.95
III. Transit trade			7.47	6.50
Total			1,170.12	1,246.92
Value of business done across the European frontier			1,092.36	1,177.11
Composed of—				
I. 1. Exports of merchandise	476.37	606.41		
2. Imports	578.33	548.21		
Total merchandise			1,054.70	1,154.62
II. 1. Exports of precious metals	24.30	7.11		
2. Imports	11.40	13.87		
Total precious metals			35.70	20.98
III. Transit trade	35.70	1.51	35.70	1.51
Total			1,092.36	1,177.11

Leading articles exported across the European frontier.

Articles.	Value.	Percentage compared with 1879.
	Roubles.	
Grain	228,410,558	— 37.12
Flax	55,570,078	— 20.24
Linseed	37,277,362	— 9.26
Forest products	32,906,000	+ 30.36
Hemp	17,533,496	— 3.61
Wool	15,202,430	+ 39.01
Cattle	13,496,927	— 7.22
Metals	8,327,400	+ 715.32

The immense increase in the export of metals was due to the speculative export of old rails in 1880.

The leading articles imported across this frontier were as follows:

Articles.	Value.	Percentage compared with 1879.
	Roubles.	
Tea	63,648,261	+ 56.84
Metals	61,734,784	+ 9.08
Cotton	51,951,396	— 13.42
Wool	24,405,573	— 17.81
Woolen yarn	20,784,754	— 31.69
Spirits	20,109,645	+ 52.51
Chemicals	18,532,001	— 16.06
Coals	17,604,580	+ 36.94
Dyes	16,580,688	— 7.78
Palm oil	14,553,994	— 8.67
Silk	11,024,335	— 21.56
Fruit	10,421,964	— 6.42

Russian trade with Finland.

[Millions of roubles.]

Exports and imports.	1880.	1879.
Exports	9.60	10.85
Imports	11.44	9.19
Total	21.04	20.04

The leading articles exported were:	Roubles.
Flour	2,352,624
Tobacco	776,144
Manufactures of flax and hemp	505,608

The leading articles of import were:	Roubles.
Cotton goods	2,639,273
Iron	1,571,440
Cattle	534,302
Butter	1,298,456
Paper	676,522

Russian trade with Asia.

[Millions of roubles.]

Exports and imports.	1880.	1879.	1880.	1879.
Total value of business done			56.72	49.77
Composed of—				
I. 1. Exports of merchandise	12.70	10.50		
2. Imports	33.04	30.31		
Total merchandise			45.74	40.81
II. 1. Exports of precious metals	4.48	3.07		
2. Imports of	0.99	0.90		
Total precious metals			5.47	3.97
III. Transit trade			5.51	4.99
Total			56.72	49.77

LEADING ARTICLES EXPORTED TO ASIA.

Articles.	Value.	Percentage compared with 1879.
	Roubles.	
Wool	2,149,724	+151.47
Silk	2,043,162	— 14.76
Cotton goods	1,902,680	+ 2.73
Woolen	1,381,209	+ 57.18

LEADING ARTICLES IMPORTED FROM ASIA.

Tea	22,414,509	+20.14
Fruit	1,547,617	— 25.71
Raw cotton	1,403,283	+19.53
Cotton goods	795,059	— 16.62
Rice	575,735	— 22.58
Silk goods	501,112	— 28.43
Woolen goods	464,039	— 51.84

THE PRODUCTION OF BORACIC ACID IN ITALY.

REPORT BY CONSUL RICE, OF LEGHORN.

I have recently returned from a most interesting excursion in the Volterra and Pomarance districts of the province of Pisa, and spent a short time at the mineral-water establishment called "Bagni a Morbo," situated in the center of the circle of springs yielding boracic acid, the property of Count de Larderel; and, while there, had ample opportunity to examine and study the same. I have considered the subject worthy of report, inasmuch as boracic acid is largely exported to the United States from Leghorn.

The nearest of the boracic-acid springs to Morbo (which establishment is also the property of the de Larderel family) is called "Lardarello"; the springs in and around the village so named, and about forty in number, besides which others exist which are not worked.

Lardarello is the most important of the seven "borax villages" (if I may so term them), which are respectively named Lardarello, Tasso, Lago, Monte Rotondo, Lusignano, and Sevazzano. The technical direction is here, as also the mansion of the Larderel family; the church, theater, schools, warehouses, stores, &c.; in fact, Lardarello is a model village, and apart from the scientific and commercial importance of the locality, is worthy of a visit simply as a specimen of what an intelligent and generous employer of labor can do, if so disposed, for the comfort of his laborers.

The properties of the springs, called on the spot "lagoni" or lagoons, were first discovered by two chemists attached to the Tuscan grand ducal court, named Pietra Hoeffer and Paolo Mascagni, in the year 1777; but the springs do not appear to have been effectually worked till early in the present century.

About the year 1824, Count de Larderel (grandfather of the present generation of proprietors) associated with a Frenchman named Lamotte, and commenced working, evaporating the water which rose with the acid, and crystallizing the remainder by means of wood fires, and this process continued till the sparsely-wooded hills in the neighborhood were left bare of timber, and then the enterprise was nigh falling into neglect. It is said that accident alone, some thirty to thirty-five years since, decided Count de Larderel, then become sole proprietor, to utilize the hot steam issuing from the springs themselves to vaporize the water and crystallize the borax, and the system then introduced maintains its sway at the present time.

It would appear that the whole of this neighborhood contains most extensive borax deposits, and though nature allows the vapor to find its way through the natural fissures in the soil, it is by no means from such natural issues that the most abundant supply is obtained. Experience has shown that by the judicious use of artesian wells a far greater result is obtained.

The system followed is this: A shallow pond is dug, and in it an artesian well is bored, which at a small depth invariably strikes the vein of borax; not content with vapor alone, the boring is carried down till the well gives water; the boring machinery is then withdrawn, and water let into the pond; the upshoot of the boring heats this pond to boiling point in a few minutes, and the boiling in a very short time im-

pregnates the water in the pond with borax shot up with hot water from the artesian well; there only remains to draw off the water, which is done every twenty-four hours, and evaporize it. This process is effected by passing it over a series of shallow metal pans arranged as a cascade; the fall from one pan to another may be two to three inches, and the pans are fifteen to twenty in number.

Underneath the pans are a series of hot steam-pipes which keep the shallow pans at an intense degree of heat, the consequence being, that a very large portion of the liquid which reaches the last or bottom pan is semi-solid borax; this is then pumped into vats and allowed to cool, and when cold, the vats have the appearance of being frozen over with a thick skin of very dirty and rotten ice; this skin is removed and strewed on the floor of a drying-house heated by hot pipes under the floor, and by this means the borax becomes crystallized.

The boracic acid is then ready for packing; the color being the same in all cases, varying from a dirty white to almost black; the acid is mixed in the stores and packed in huge casks weighing 14 to 16 cwt., for exportation.

The lagoons are most interesting to watch. When full of water the boiling is continuous, rising (especially in the case of the artesian borings) to some feet in height. When natural springs the bubbles are about a foot above the level of the water; the vapor is, however, most clammy, and especially unpleasant from its excessive sulphurous odor.

When the water is pumped out, the bottom of the lagoon remains of a dirty mud color, with round, semi-spherical holes like pock-marks, varying from a foot to several feet in diameter and depth; these are the springs. When empty they each give off a small amount of vapor, but as water finds its way into the holes in question, ebullition commences, and each hole appears to be a cooking-pot, boiling with all its might, the water rising more and more, the lagoon one huge boiling caldron.

The difficulty in the production, and a very grave difficulty it is, consists in the scarcity of water; in fact in the summer, Lardarello is almost the only establishment that can work satisfactorily, and even at Lardarello the works are often working half time only. The water which has served in the mineral baths at Morbo is carefully drained down to the Lardarello reservoir, and there stored.

When I visited the place after a long and particularly hot summer, water for the works had become a precious thing. The residents, of course, get used to it, but visitors to Lardarello find any lengthy stay there unpleasant in the extreme, from the enormous quantity of moisture and vapor permanently suspended in the atmosphere, as also the oppressive smell of sulphur. The effect of this on metals may well be imagined. I happened to see in the music-room a strange-looking musical wind instrument of a novel form to me, it being black and covered with a greasy coating a millimeter thick. I concluded it was an antique, and was amazed when I learned that it was a recent present from Count Larderel to the band, and that what I saw was simply the normal state of all brass instruments there. The chemist's silver watch looked more like platinum than silver, and the chemist told me that only gold of the purest quality kept its color.

Matters have been so arranged by the Larderel family, that their work people, save for alimentary substances and raw materials, are almost independent of the outer world. The men and boys work on the borax, and the female portion of the community spin and weave. I visited a building containing some thirty looms, and the stuffs manufactured were really very fair in quality; the workers are paid by the piece, and

the whole is put into store, the entire population drawing their textile fabrics thence at moderate prices. There is a doctor, a resident chemist, priest, school master and mistress, a band master, &c. In case of illness the workman is sent at Count Larderel's expense to Morbo, or other thermal establishment, as may be necessary, without losing pay. The houses are neat, airy, and commodious. The church is worthy of a larger village; in it I found a pulpit and altar, frontal in bronze, which Count de Larderel purchased at the English exhibition in 1851.

I understand that the health of the people is excellent as a rule, and I was interested in hearing one of the head workmen, speaking of their contented life, saying, "We pray to God for the Larderel family first, and for ourselves afterwards." How many employers of labor in the world have had that said of them?

My remarks have been confined to Lardarello, the other stations being but Lardarello on a smaller scale.

It would be most difficult to estimate with any degree of certainty the quality of borax produced, as all are reticent in the extreme on this point. From what I could glean, going from one source to another, I gathered that Lardarello averages 3 to 3½ tons per day, and that this station produces nearly one-half the whole quantity extracted, which would make some eleven tons per diem as the total production.

At Leghorn I have been unable to control these figures; the exports to other countries I have been unable to ascertain with precision. To the United States, 1,240,746 kilograms—value, $211,061.85—was exported in 1880; this would be about one-third of the whole amount produced.

During the first three-quarters of 1881 there was a heavy falling off, which I have noted in former reports, exports to the United States amounting only to 65,648 kilograms, value, $14,098.51.

The laborers on the Larderel property number 1,800 persons, of whom 800 males are employed on the acid production.

I may add here a few words regarding the baths of Morbo, used by the famous "Lorenzo il Magnifico," celebrated in Tuscan history; they contain springs hot and cold, comprising the properties of the mineral waters of Vichy, Montecatini, Casciana, &c. I saw, myself, persons suffering from chronic rheumatism *carried* into the establishment like children in arms, who, after a three or four weeks' cure, walked away with the elastic step of youth.

It is to be regretted that the present proprietor does not fit up the establishment for the reception of invalids, as its sulphur and iron springs are far superior to any in Italy and equal to any in Europe.

WILLIAM T. RICE,
Consul.

UNITED STATES CONSULATE,
Leghorn, Italy, March 13, 1882.

SHIP-BUILDING AT LEITH.

REPORT BY CONSUL LEONARD.

The ship-building trade of Leith during the past few years has progressed very rapidly and has attained proportions quite unprecedented in the history of the port. Wooden ship-building has been one of the local trades for centuries, although the vessels built have been mostly of a small description, but within the past four or five years many steam-

ships and other vessels, of iron and of wood, have been launched from the building-yards here, and such improvement in the trade has continued increasing until, in respect of the number and tonnage of vessels launched during 1881, Leith now ranks as the most important ship-building port on the east coast of Scotland.

Excellent facilities exist for launching vessels direct into the Firth of Forth; nevertheless, by reason of the limited dock accommodation, the dock commissioners for a long period did not encourage letting of their ground for ship-building yards, and many applications from Clyde and other ship-builders for ground were consequently declined, but the great additional accommodation afforded during recent times by the construction of new docks has allowed of space being granted. Accordingly, about five years ago, Messrs. Ramage & Ferguson obtained five acres of ground for ship-building purposes, and now their business has become the largest of the kind in Leith. The firm have extended their ground to ten acres, and are erecting new engines and boiler-sheds in addition to the premises already built. They employ about 800 men at present, but when the new portion of the yard is in full operation they may probably employ between 1,200 and 1,500 men.

Ten vessels were launched from Messrs. Ramage & Ferguson's yard during 1880, embracing five screw-steamers, a steam lighter, a hopper barge, and three steam-yachts, with an aggregate of 4,748 tons. During 1881 they launched nine vessels, consisting of five screw-steamers, one paddle-steamer, one bark, and two steam-yachts, with 7,725 of an aggregate tonnage. Several of these vessels were built specially for the trade in the East. One of the vessels for home traffic was the steel paddle-steamer Mid-Lothian, 1,000 tons, for the North British Railway Company's goods ferry, between Granton, a sea-port about a mile west from Leith, and Burntisland, a sea-port in Fifeshire, on the northern coast of the Firth of Forth. This paddle-steamer carries a whole train of forty loaded trucks across the Firth of Forth on six feet draught of water, and the total deck area is about 13,200 square feet, or nearly one-third of an acre. The steel used in the construction of the vessel was supplied by Herr Krupp, of Essen, and is made by the Siemens-Martin process.

Hitherto the use of steel as a material for ship-building has been merely partial or occasional, but there are now indications that to a considerable extent it will soon take the place of iron. Among the vessels recently launched from the yard above referred to may be mentioned the steamship Rance, 900 tons, built for the Borneo Company of London and Singapore, which on her trial trip attained a mean speed of 11¼ knots per hour; the steamship Penang, 624 tons, built for Chinese owners in Singapore, which on her trial trip, with 730 tons dead weight on board and a mean draught of 13 feet 1 inch, attained a speed of 10¾ knots easily, and the steam-yacht Candace, 400 tons. The Candace made her trial trip over the new measured mile on the Firth of Forth, and had the first trial of it ever made by any vessel. Having her two-bladed Bevis feathering propeller set at a pitch of 14′ 3″ a speed of 12.245 knots was attained, but on subsequent runs, when the pitch was altered to 15′ 3″, the result was even better. This speed is fully ¾ of a knot more than any vessel of the kind has ever attained, and the Candace may therefore claim to be the fastest auxiliary steam-yacht afloat.

The longest established firm of ship-builders in Leith is that of Messrs. S. & H. Morton & Co. They have been well known during the last half century as the inventors of the far-famed patent slip-dock. In the early days of ship-building there were only two modes whereby repairs

could be effected, namely, by dry-dock or by hauling up on greased ways. Those methods were continued without improvement till the early part of the present century, when the late Mr. Thomas Morton, a Leith ship-builder, gave the subject his attention, and the present slip-dock was the result of his planning. A patent was secured and was successfully worked by him. The advantages of the invention are many, and were there but one, namely, economy, its recommendation to ship-builders and others would be secured by the fact that, whereas the old process of hauling up on greased ways cost the round sum of £170 ($827.30); by the slip-dock a ship can be placed in a position to be repaired at an aggregate expense of £2 ($9.73).

The inventor died in 1832, and his successors, Messrs. Samuel and Hugh Morton & Co., engineers and ship-builders, Leith, act as the representatives of the patentee.

The Messrs. Morton do a large business in the repair of vessels, but their ship-building trade has much increased of late years. In 1880 they built the steamship Esparto, 1,200 tons, for the London and Edinburg Shipping Company. During the year 1881 they have built two large vessels, which were on the stocks at the close of the previous year. These were the steamer Scotia, 2,600 tons, and the steamship Iberia, 1,600 tons. The Scotia was the largest vessel ever launched in Leith. She was built for a French firm and intended for the transatlantic trade between Marseilles and New York. The vessel was fitted with Napier's patent steam windlass and all the latest improvements. The Iberia was also built for the same firm. Messrs. Morton have at present on the stocks a steamer for Mr. T. G. Parker, Melbourne. Her gross tonnage will be 1,700. There are also three vessels of 1,000 tons each in course of construction, so that the returns by this firm next year will again show an increase in the number and tonnage of the vessels launched from the yard.

Messrs. Hawthorn & Co. have launched two coasting steamers, to carry about 130 tons, fitted with compound surface condensing engines of about 18 horse-power, nominal, and all the latest improvements, and they have other orders on hand for same description of vessel. Their trade is chiefly confined to engine and boiler making and the repairing of vessels. It may be of interest to mention that no sailing vessels are now built for the coasting trade. The tendency now is to carry on the "ocean" traffic by means of large steamers, which are unable to enter the smaller ports; the result is that there is a demand for smaller steamers in order to take up this branch of the trade.

A branch of the ship-building industry, which only came into existence a few years ago, is the building of wooden screw steam trawling vessels. Messrs. D. Allan & Co. have during the past two years launched a large number of steam trawlers, and they have others in progress. While some of these vessels were for the home trade, others have gone to Spain, France, and the West Indies, and it is generally believed that they will effect great changes and improvement in the fishing industry; they have financially proved most successful. Several of the vessels launched here lately were built for the Sociedad de Pesquierias Canario Africanus, a fishing firm at Madrid, and were intended for fishing purposes at the Canary Islands and along the Spanish coast. This special vocation is being prosecuted by the Spaniards with the greatest success; as much as £80 ($389.32) is said to have been made in one week by a single boat. Two steam trawling companies have been organized in this district; one, the Scottish Steam Fishing and Shipping Com-

pany, limited, will commence operations within two months, as the first of their vessels is nearly completed.

J. A. LEONARD,
Consul.

UNITED STATES CONSULATE,
Leith, Scotland, January 30, 1882.

PETROLEUM TESTS IN GERMANY.

REPORT BY CONSUL GRINNELL, OF BREMEN.

I have the honor to inclose herein an official copy and translation of the imperial decree regulating the sale of petroleum within the German Empire, to take effect after January 1, 1883. This is understood to establish substantially the test required by Great Britain, viz, 120° Fahr.; but detailed instructions regarding tests will hereafter be issued. The Ebel thermometer is to be used.

WILLIAM T. GRINNELL,
Consul.

UNITED STATES CONSULATE,
Bremen, March 17, 1882.

[Inclosure.—Translation.]

Decree of February 24, 1882, *regulating the sale of petroleum by tradesmen.*

We, William, by the grace of God Emperor of Germany and King of Prussia, &c., order, in the name of the Empire and by reason of § 5 of the law of May 14, 1879, regarding the trade in provisions and articles of consumption, after obtaining the consent of the Federal Council, as follows:

§ 1. The sale and trade in petroleum which, under the height of a barometer of 760 millim., lets escape inflammable vapors, even by a warming of less than 21° of the centigrade thermometer, is only allowed in such vessels, which, in a prominent place, on red ground, bear the inscription, in plain letters which cannot be effaced, "dangerous" (*Feuergefährlich*). When petroleum of that kind is professionally offered for sale in quantities of less than 50 kilograms, or sold in such small quantities, then, to the beforementioned inscription the words, "only to be used for burning purposes under special precautionary measures" are to be added.

§ 2. The examination of the inflammability of petroleum, in the sense of § 1, has to be made with the Abel petroleum test. Regarding the managing of the same, the Imperial Chancellor will issue particular instructions. If the examination is made under another height of the barometer than 760 millim., the degree of heat is taken which corresponds with the table of reduction, comparing the height of the barometer designated in § 1, which will be published by the Imperial Chancellor.

§ 3. This decree does not apply to the sale and trade in petroleum by apothecaries for medical purposes.

§ 4. Crude petroleum and its distilled products are understood in this decree.

§ 5. This decree will take effect on January 1, 1883.

Given at Berlin February 24, 1882.

WILLIAM.

[L. S.] VON BOETTICHER.

GERMAN EMIGRATION STATISTICS, 1871 TO 1881, INCLUSIVE.

REPORT BY CONSUL-GENERAL VOGELER, OF FRANKFORT-ON-THE-MAIN.

The statistical bureau of the German Empire has just published a detailed account of the emigration from Germany during the period from

1871 to 1881, from which I gather the following points, believing them to be of interest to the Department:

German emigration across the seas in the years 1871 *to* 1881.

Years.	Total ascertained number of emigrants.	By way of—			
		Bremen.	Hamburg.	Stettin.	Antwerp.
1871	75, 912	45, 658	30, 254	.....	.....
1872	125, 650	66, 919	57, 615	.....	1, 116
1873	103, 638	48, 608	51, 432	.....	3, 598
1874	45, 112	17, 907	24, 093	1, 536	1, 576
1875	30, 773	12, 613	15, 826	268	2, 066
1876	28, 368	10, 972	12, 706	202	4, 488
1877	21, 964	9, 328	10, 725	75	1, 836
1878	24, 217	11, 329	11, 827	85	976
1879	33, 327	15, 828	13, 165	245	4, 089
1880	106, 190	51, 627	42, 748	552	11, 224
1881	210, 547	98, 510	84, 425	1, 434	26, 178
In the eleven years from 1871 to 1881.	805, 698	389, 299	354, 855	4, 397	57, 147

Years.	To—								
	United States of America.	British North America.	Mexico and Central America.	West Indies.	Brazil.	Other ports of America.	Africa.	Asia.	Australia.
1871	73, 816	9	21	37	929	263	18	11	817
1872	120, 056	680	38	61	3, 232	387	2	12	1, 172
1873	96, 641	49	32	28	5, 048	496	4	9	1, 331
1874	42, 492	138	24	32	1, 019	418	5	23	900
1875	27, 834	38	26	47	1, 387	377	1	37	1, 026
1876	22, 767	11	8	35	3, 432	804	54	31	1, 226
1877	18, 240	11	25	243	1, 069	289	750	31	1, 306
1878	20, 373	89	22	74	1, 048	449	394	50	1, 718
1879	30, 808	44	17	59	1, 630	441	23	31	274
1880	103, 115	222	19	100	2, 119	420	27	86	132	
1881	206, 189	286	56	58	2, 102	762	314	35	745
In the eleven years from 1871 to 1881..	762, 331	1, 587	288	825	23, 006	5, 106	1, 592	316	10, 647
Of 1,000 emigrants went to	946. 2	2. 0	0. 4	1. 0	28. 5	6. 3	2. 0	0. 4	13. 2

The official report from which these figures are taken admits their incompleteness, because the four sea-ports mentioned, viz: Bremen, Hamburg, Stettin, and Antwerp are by no means all the ports from which German emigrants embark. The number of Germans, for example, who embarked from Havre de Grace in 1880 amounted to 10,757, coming mainly from Baden and Alsace-Lorraine. The figures for 1881 from that port are not yet available, but may be presumed largely to exceed those of 1880. To these must be added such persons as embark from Rotterdam, Liverpool, Glasgow, and London, although the bulk of these repair to the last-named harbors by way of Hamburg and Stettin, and are therefore included in the figures for the latter ports.

The ascertained number of German emigrants to the United States

amounted in the year 1881 to 206,189, and to these the unregistered emigration by way of Havre, Rotterdam, Liverpool, Glasgow, and London of, say, 23,811 persons, which is not an excessive estimate, in view of the fact that nearly 11,000 Germans embarked from Havre alone in 1880, when the tide of emigration was only half as strong as in 1881, and we have a grand total of emigration from Germany to the United States in 1881 of 230,000 people.

Of the 805,698 registered emigrants from Germany during the period 1871 to 1881, as shown by the foregoing table, the different German States furnished the following quota:

German States.	German emigrants by way of Bremen, Hamburg, Stettin, and Antwerp, 1871 to 1881.	Average annual loss to 1,000 inhabitants.
Prussia	525,637	1.8
Bavaria	71,669	1.6
Saxony	26,525	0.9
Wurtemberg	43,501	2.1
Baden	33,125	2.1
Hesse	20,298	2.1
Mecklenburg	31,924	3.9
Thuringian States	12,544	1.0
Oldenburg	8,866	2.5
Bremen	5,894	2.7
Hamburg	11,816	2.7
Other States	13,809	1.9

It should be stated that the German emigration by way of Havre, which amounted during the ten years, from 1871 to 1880, to 30,494 persons, and which is not included in the foregoing tables, must be charged mainly to the South German States, thus materially raising the actual and relative number of emigrants from those States.

For the first time in the history of emigration in Germany, the age of the emigrants and other matters pertaining to their social status have been ascertained at three great ports of emigration, viz: Bremen, Hamburg, and Antwerp. The number of emigrants who embarked from these three ports during the year 1881 was 209,113, of whom all but about 3,000 went to the United States. Of these 209,113 there were—

Emigrants via Bremen, Hamburg, and Antwerp in the year 1881.

Age.	Male.	Female.	Total.
Under ten years of age	29,831	26,898	56,729
From ten to twenty years of age	21,021	14,711	35,732
From twenty to thirty years of age	39,941	24,183	64,124
From thirty to forty years of age	18,608	10,879	29,487
From forty to fifty years of age	7,856	5,286	13,142
From fifty to sixty years of age	3,380	3,063	6,443
From sixty to seventy years of age	1,310	1,357	2,667
Of seventy years and upwards	323	275	598
Age not ascertained	119	72	191

The relation of ages, as classified above, to the representation of the same classes in the general population of Germany, is as follows:

There were of 1,000 persons—

Age.	Among the emigrants.	Among the population.
Under ten years of age	27.1	24.6
From ten to twenty years of age	17.1	19.7
From twenty to thirty years of age	30.7	15.9
From thirty to forty years of age	14.1	13.4
From forty to fifty years of age	6.3	10.3
From fifty to sixty years of age	3.1	8.4
From sixty to seventy years of age	1.3	5.1
Of seventy years of age and upwards	0.2	2.5
Age not ascertained	0.1	0.1

From these figures, which may be taken as characteristic of the condition of emigrants as to age generally, it appears that the most desirable class, viz, that from twenty to thirty years of age is twice as strong among the emigrants as among the population generally, while of those up to twenty years and of those from thirty to forty years the relation is about even among the emigrants and the people generally. As to the three ports mentioned the statistical tables also give the family relations of the emigrants.

The emigration from the ports mentioned consisted, in the year 1881, of 35,978 families, comprising as members, males, 66,769; females, 68,358; together, 135,077 persons. Besides these there came single males, 55,620; single females, 18,416; making the total of 209,113, the number of Germans who embarked from Bremen, Hamburg, and Antwerp in 1881, as aforesaid. This shows the emigration from those ports to have consisted of—

	Per cent. of emigrants.
Male members of families	31.9
Female members of families	32.7
Male single persons	26.6
Female single persons	8.8

While with reference to the sex generally the proportion was as follows: Males, 58.5 per cent.; females, 41.5 per cent.

FERDINAND VOGELER,
Consul-General.

UNITED STATES CONSULATE-GENERAL.
Frankfort-on-the-Main, March 13, 1882.

WAGES AND FOOD PRICES IN GERMANY.

REPORT BY COMMERCIAL AGENT WAMER, OF DUSSELDORF.

I have the honor to inclose herewith a short report on the earnings of laborers employed in a special branch of industry in Germany.

In view of the very large number of Germans that have left this country during the last decade for the United States, and a continued desire on their part to leave, I deem it of importance to furnish the public with any information touching the condition of the laboring class here.

Through the liberality of one of the chiefs of the largest paperhanging manufactories in Germany I have been allowed the rare privilege of examining the pay-roll of the workmen employed in this special branch of industry. The result of my examination revealed that the average

weekly wages paid to each common laborer, exclusive of board and lodging, amounts to 19.75 reichsmarks, or $4.58. Anxious to learn how much of these earnings it required to support such common laborers, I took an opportunity to question very closely into their domestic affairs, and, by careful comparison made, I may safely assert that each one can exist on 14.93 reichsmarks ($3.56) for the same period of time, one week. Below will be found the specification from which I have deduced my calculations:

Table showing the average weekly expenses and costs for the support of each common laborer employed in the above-mentioned manufactory.

Taxes	$0 06½
House hire	66½
Clothing and washing	45½
Eating and drinking:	
Coffee	09½
Potatoes	26½
Meats	81
Cheese	09½
Butter and fat	35½
Beans and pease	14½
Black bread	19
White bread	09½
Beer	23½
Liquor	08½
Total	3 56

It will be seen from these figures that such a laborer has, after the deduction of his expenses for living, a balance of $1.02 in his favor, and which must go towards the support of a family, provided he has a family. I would also call attention to the taxes noted in the above specification, and which are very compulsory by the government, should these poor people show any inclination to avoid paying them.

The average daily wages paid in this manufactory to special workmen are as follows:

*Foreman	$1 42
Machine-printers	77½
Block-cutters	1 03
Grounders	69
Flockers	93
Engineer	1 50
Boys	30

In order that the readers may form an idea of the cost of living in the city where this manufactory is located, I give below the prevailing market prices of articles of food as sold there:

	Per half kilogram.†
Ox meat	$0 15 to $0 22
Veal	14½
Mutton	15½
Bacon, smoked	19
Pork, salted	17½
Butter	28 to 34
Fat	19
Fish	14½
Bread, black	02½
Bread, white	05½
Cheese, Holland	19
Cheese, Swiss	28½
Eggs, per 25	42½
Onions	02½
Potatoes, per 50 kilograms	1 00 to 71½

* With house-rent. Taxes on this income, per year, $13.33.
† One-half kilogram = 1.102 pound.

The daily work required in this manufactory is twelve hours, summer and winter.

WM. D. WAMER,
Commercial Agent.

UNITED STATES COMMERCIAL AGENCY,
Dusseldorf, March 1, 1882.

BRITISH TRADE RETURNS.

REPORT BY CONSUL SHAW, OF MANCHESTER.

I herewith forward an interesting compilation of statistics made up from the board of trade returns, exhibiting the commerce of Great Britain for the months of January and February of this year, which I have taken from the Manchester Guardian of this day.

These comparative returns will show at a glance how vast the volume of English foreign trade is with all the great commercial centers of the world, and furnish an excellent idea of the leading markets to which English manufactures are sent. The present is a season of quietness in this part of England and trade is not very promising. Much discussion has lately taken place over the proposition to adopt "short time," so as to limit the production and thus prevent a glut in the market. A large stock of manufactured goods in hand, and only a moderate demand for the same and at very low prices, has led to this discussion, and it will likely be adopted. Prices are low and profits are small in this district; and manufacturers find it more than usually difficult to earn a profit on their outfit.

The long delay in negotiating a treaty with France for commercial purposes has somewhat embarrassed a class of manufacturers who work for French markets; but no great loss has resulted from this cause.

At this date it is uncertain what the final outcome of this treaty will be, although the impression seems to grow stronger here that no treaty will finally be agreed upon, at least not upon the lines the English commissioners at present insist on.

The past winter has been exceptionally mild, and this has enabled manufacturers to secure an even grade of clothes, and operatives have been more comfortable in consequence.

ALBERT D. SHAW,
Consul.

UNITED STATES CONSULATE,
Manchester, March 8, 1882.

[Inclosure in Consul Shaw's report.]

THE BOARD OF TRADE RETURNS.

The board of trade returns for February and the two months ended 28th February, were issued yesterday. The declared value of our exports in the month has been £18,935,994, against £16,835,550 in 1881, and £16,504,708 in 1880. The total for the two months is £38,756,677, against £34,154,461 in 1881, and £33,417,566 in 1880. The declared value of our imports in the month was £33,002,892, against £36,646,270 in 1881, and £33,246,028 in 1880; and in the two months £65,022,359, against £63,389,232 in 1881, and £65,618,935 in 1880.

The following figures relate to the two months ended 28th February:

IMPORTS.

Articles.	1880.	1881.	1882.
Cotton.....cwt..	2, 882, 497	3, 408, 100	3, 153, 510

EXPORTS.

Cotton.....cwt..	297, 111	276, 940	201, 290
Cotton yarn.....lbs..	31, 198, 400	36, 338, 600	37, 696, 500
Cotton piece goods.....yds..	709, 669, 800	788, 222, 400	724, 841, 100
Iron and steel.....tons..	540, 231	389, 962	617, 301
Jute piece goods.....yds..	30, 000, 700	28, 164, 500	30, 854, 500
Linen yarn.....lbs..	2, 380, 200	2, 583, 700	3, 460, 400
Linen piece goods.....yds..	37, 900, 100	33, 402, 900	35, 191, 800
Silk manufactures.....£..	311, 835	406, 512	484, 706
British wool.....lbs..	4, 388, 200	3, 094, 600	1, 681, 600
Colonial and foreign wool.....lbs..	17, 188, 091	13, 812, 964	13, 188, 986
Woolen yarn.....lbs..	4, 549, 800	3, 359, 400	4, 186, 200
Wool fabrics.....yds..	7, 428, 200	8, 512, 500	10, 065, 400
Worsted fabrics.....yds..	41, 173, 900	38, 739, 000	35, 331, 600
Flannels.....yds..	864, 300	1, 139, 100	2, 152, 400
Carpets.....yds..	1, 441, 100	1, 301, 100	1, 982, 700
Blankets.....pairs..	200, 780	234, 940	313, 089

COTTON YARN EXPORTED.

Subjoined are the particulars of the exports of cotton yarn, distinguishing the countries to which those exports have been made, during the month of February, 1882, compared with the corresponding months in 1880 and 1881:

Countries.	1880.	1881.	1882.
	Pounds.	*Pounds.*	*Pounds.*
Russia	1, 203, 000	135, 800	196, 100
Germany	2, 460, 900	2, 619, 200	2, 508, 300
Holland	2, 243, 800	2, 597, 300	2, 206, 500
Belgium	369, 200	827, 200	1, 643, 200
France	278, 600	337, 800	683, 900
Italy	517, 900	1, 630, 900	879, 000
Austrian territories	132, 400	302, 100	385, 800
Roumania	19, 100	10, 200	535, 400
Turkey	1, 162, 000	570, 100	865, 000
Egypt	272, 800	334, 300	150, 200
China and Hong-Kong	1, 272, 500	1, 531, 000	837, 500
Japan	1, 964, 100	1, 607, 600	2, 382, 200
British India:			
Bombay	1, 137, 000	750, 900	546, 300
Madras	533, 000	968, 200	522, 900
Bengal	1, 117, 400	1, 624, 700	1, 563, 100
Straits Settlements	83, 100	389, 000	396, 100
Ceylon	4, 000	22, 500	13, 000
Other countries	960, 500	1, 159, 700	1, 289, 500
Total	15, 746, 300	17, 348, 500	17, 543, 000

COTTON MANUFACTURES EXPORTED.

The following were the quantities of cotton manufactured piece goods exported in January, compared with the corresponding month in the two preceding years:

Countries.	1880.	1881.	1882.
	Yards.	*Yards.*	*Yards.*
Germany	3, 998, 600	4, 738, 500	3, 402, [illegible]
Holland	4, 327, 700	3, 538, 000	3, 963, 400
France	4, 785, 800	4, 805, 900	6, 887, 100
Portugal, Azores, and Madeira	5, 176, 700	6, 315, 300	4, 388, 000
Italy	5, 158, 700	8, 951, 300	4, 632, 800
Austrian Territories	637, 100	534, 400	629, 700
Greece	3, 010, 600	2, 007, 200	1, 688, 900
Turkey	42, 508, 200	28, 356, 700	22, 538, 500
Egypt	13, 098, 100	12, 161, 500	5, 960, 300

Countries.	1880.	1881.	1882.
	Yards.	*Yards.*	*Yards.*
West Coast of Africa (foreign)	1, 529, 600	4, 105, 500	4, 332, 100
United States	7, 817, 300	8, 285, 800	8, 570, 800
Foreign West Indies	3, 064, 200	7, 623, 300	4, 215, 300
Mexico	2, 125, 300	2, 934, 000	4, 671, 500
Central America	1, 306, 700	3, 373, 000	1, 983, 000
United States of Colombia	3, 431, 400	4, 329, 900	3, 837, 300
Brazil	24, 158, 700	15, 522, 100	17, 195, 900
Uruguay	1, 856, 100	3, 140, 100	2, 862, 000
Argentine Republic	3, 470, 200	10, 008, 600	5, 173, 800
Chili	3, 215, 700	4, 413, 700	5, 277, 900
Peru	736, 900	1, 461, 700	2, 516, 500
China and Hong-Kong	44, 321, 900	37, 172, 700	43, 868, 500
Japan	3, 477, 300	4, 004, 300	5, 818, 900
Dutch possessions in India	5, 736, 600	7, 007, 900	6, 777, 800
Philippine Islands	4, 074, 200	3, 461, 000	7, 879, 000
Gibraltar	1, 274, 000	1, 073, 100	843, 200
Malta	687, 400	1, 583, 400	1, 800, 900
West coast of Africa (British)	3, 402, 400	3, 463, 700	3, 137, 300
British North America	3, 974, 400	6, 101, 900	6, 468, 200
British West India Islands and Guiana	4, 272, 900	2, 478, 800	4, 136, 600
British possessions in South Africa	2, 565, 200	1, 719, 900	2, 880, 500
British India:			
Bombay	36, 738, 200	40, 257, 600	44, 557, 100
Madras	4, 375, 000	5, 955, 500	7, 611, 000
Bengal	74, 925, 200	96, 153, 100	69, 888, 000
Straits Settlements	9, 394, 000	9, 921, 300	7, 855, 900
Ceylon	2, 076, 000	1, 711, 300	1, 244, 500
Australia	2, 195, 400	3, 606, 900	6, 253, 400
Other countries	13, 474, 700	14, 573, 000	17, 225, 400
Total unbleached or bleached	242, 236, 400	262, 989, 600	247, 571, 800
Total printed, dyed, or colored	109, 347, 800	112, 053, 000	103, 704, 000
Total mixed materials, cotton predominating	877, 200	1, 808, 700	2, 917, 600
Total	352, 461, 400	376, 851, 300	354, 193, 400

Other manufactures of cotton show as follows:

Articles.	1880.	1881.	1882.
Lace and patent net	£180, 958	218, 418	256, 210
Hosiery of all sorts	£84, 625	105, 390	107, 247
Thread for sewing lb.	807, 162	905, 996	1, 118, 960
Other manufactures unenumerated	£72, 008	78, 317	91, 274
Total value of cotton manufactures	£5, 037, 910	5, 304, 856	5, 097, 107

COTTON IMPORTED AND EXPORTED.

The imports and exports of cotton during the month of February, 1882, as compared with those of 1880 and 1881, were as follows:

COTTON IMPORTED.

Countries.	1880.	1881.	1882.
	Cwt.	*Cwt.*	*Cwt.*
United States	1, 059, 651	1, 709, 540	1, 084, 852
Brazil	9, 304	48, 999	47, 139
Egypt	261, 604	196, 060	208, 660
British India	86, 664	155, 956	203, 927
Other countries	13, 891	16, 706	26, 022
Total	1, 431, 114	2, 127, 261	1, 570, 600

COTTON EXPORTED.

Russia, northern ports	3, 313	14, 254	7, 089
Germany	32, 807	31, 914	29, 774
Holland	19, 522	38, 235	17, 338
Belgium	50, 550	46, 591	31, 243
France	5, 794	12, 199	3, 311
Other countries	14, 264	12, 428	12, 088
Total	126, 250	155, 621	100, 843

The following account shows the quantities and value of the principal articles of British and Irish produce and manufacture exported in the month of February, 1882, as compared with February, 1881, together with the increase per cent. on the same:

Articles.	Quantities.		Per cent. in 1882.
	1881.	1882.	
Alkali.....cwt..	402, 834	393, 171	2.4†
Beer and ale.....barrels..	35, 942	41, 088	14.3*
Coal and patent fuel.....tons..	1, 113, 171	1, 349, 138	21.2*
Cotton yarn.....pounds..	17, 348, 500	17, 543, 000	1.1*
Cotton piece goods.....yards..	376, 851, 300	354, 198, 400	6.0†
Iron and steel.....tons..	192, 870	299, 911	55.5*
Jute yarn.....pounds..	1, 290, 200	1, 687, 600	30.8*
Jute piece goods.....yards..	13, 947, 800	15, 912, 900	14.1*
Linen yarn.....pounds..	1, 328, 300	1, 674, 200	26.5*
Linen piece goods.....yards..	15, 843, 700	16, 443, 200	3.8*
Wool, sheep, and lambs.....pounds..	1, 487, 800	680, 500	54.3†
Woolen and worsted yarn.....pounds..	1, 620, 800	1, 950, 600	20.3*
Woolen fabrics.....yards..	4, 289, 700	8, 362, 200	95.0*
Woolen flannels....."....	486, 600	1, 106, 300	127.4*
Woolen carpets....."....	779, 400	956, 000	22.7*
Woolen blankets.....pairs..	102, 320	161, 029	57.4*
Worsted fabrics.....yards..	19, 984, 900	15, 781, 100	21.0†

Articles.	Value.		Per cent. in 1882.
	1881.	1882.	
Alkali	£127, 973	£125, 444	2.0†
Apparel	263, 862	402, 026	52.4*
Beer and ale	141, 018	156, 761	11.2*
Coal and patent fuel	510, 330	629, 468	23.2*
Cotton yarn	919, 889	948, 283	3.1*
Cotton piece goods	4, 756, 888	4, 476, 716	5.9†
Cotton, other manufactures	547, 968	620, 391	13.2*
Haberdasahery	328, 837	366, 680	11.5*
Hardware and cutlery	268, 207	303, 158	13.0*
Iron and steel	1, 551, 372	2, 303, 891	48.5*
Jute yarn	17, 460	22, 662	29.8*
Jute piece goods	164, 158	179, 040	9.0*
Leather, unwrought and wrought	258, 089	353, 906	37.1*
Linen yarn	79, 416	91, 189	14.9*
Linen piece goods	473, 431	448, 461	5.3†
Machinery and mill work	504, 684	797, 597	58.0*
Silk, thrown, twist, and yarn	63, 279	74, 692	18.0*
Silk manufactures	221, 179	213, 130	3.6†
Wool, sheep, and lambs'	94, 682	47, 475	49.9†
Woolen and worsted yarn	183, 604	215, 725	17.5*
Woolen fabrics	699, 167	982, 927	40.6*
Woolen flannels	21, 347	42, 785	100.4*
Woolen carpets	95, 739	109, 354	14.2*
Woolen blankets	43, 543	76, 306	75.3*
Worsted fabrics	729, 801	581, 251	20.4†
All other articles	3, 769, 132	4, 386, 676	15.9*
Total declared value	16, 835, 550	18, 935, 994	12.5*

*Increase †Decrease.

BULLION AND SPECIE.

The imports and exports of gold and silver during February have been as follows:

IMPORTS.

	1880.	1881.	1882.
Gold	£217, 442	£1, 328, 172	£2, 424, 690
Silver	416, 647	703, 890	532, 458
Total	634, 089	2, 032, 062	2, 957, 148

EXPORTS.

	1881.	1882.	1882.
Gold	945,785	344,284	962,918
Silver	648,109	611,544	416,314
Total	1,593,894	955,828	1,379,232

Subjoined is a classified list of the exports of all articles shown in the monthly trade and navigation returns from the United Kingdom to the United States of America in the month ended 28th February, 1882, as compared with the corresponding month of 1880 and 1881:

	1880.	1881.	1882.
Iron:			
Pig ..... tons	69,651	18,648	26,914
Bar, angle, bolt, and rod ..... do	6,526	791	3,261
Railroad of all sorts ..... do	12,342	14,937	23,509
Hoops, sheets, and boiler-plates ..... do	4,957	406	1,795
Tin-plates ..... do	10,257	11,114	13,314
Cast and wrought ..... do	716	508	732
Old for remanufacture ..... do	29,529	5,190	13,157
Steel, unwrought ..... do	2,908	5,517	17,676
Lead, pig, rolled, sheet ..... do	10	10	110
Tin, unwrought ..... cwt	2,327	486	775
Yarns:			
Jute yarn ..... lb	476,200	285,400	816,106
Textile fabrics:			
Cotton piece goods ..... yds	7,817,300	8,285,800	8,570,800
Jute piece goods ..... do	8,567,100	7,188,200	7,403,200
Linen piece goods ..... do	11,565,000	8,882,600	9,965,300
Silk broad stuffs ..... do	35,640	47,522	40,364
Woolen fabrics ..... do	460,500	515,400	742,000
Worsted fabrics ..... do	3,932,700	2,934,000	3,161,800
Woolen carpets ..... do	310,200	99,500	131,200
Miscellaneous articles:			
Alkali ..... cwt	208,757	264,508	214,201
Bags, empty ..... dos	22,501	74,801	60,723
Beer and ale ..... barrels	1,273	1,153	1,750
Paper of all sorts (except hangings) ..... cwt	521	597	1,681
Salt ..... tons	16,981	14,772	21,839
Spirits, British and Irish ..... gals	2,831	4,410	5,066
Wool, sheep and lambs' ..... lb	1,878,200	942,800	210,600
Articles shown by value only:			
Apparel and slops	£8,507	£4,292	£3,159
Earthen and china ware	67,236	56,888	63,066
Haberdashery and millinery	37,337	39,976	61,294
Hardware and cutlery	34,891	36,407	33,463
Machinery of all sorts	40,460	30,677	44,660
Silk manufactures, unenumerated	4,067	6,107	2,985
Mixed with other matt	10,388	10,644	23,889
Stationery	2,933	7,165	8,157

RICE CULTURE AND RICE CLEANING MACHINERY IN JAPAN.

REPORT BY CONSUL JONES, OF NAGASAKI.

Modern agricultural implements have not found their way to the island of Kin Shin (Kew Shew). With the exception of an occasional garden hoe or rake, brought by some foreign resident from America or England, for use about his private grounds, one sees here nothing familiar in that line. The implements of agriculture of the country are of the most primitive character, and have been used right down the centuries from the earliest farmer.

The farmer of Japan may be said to be hereditary. He is the descendent of the man who first tilled the soil, and his skill and his occupation are likewise hereditary. He never goes out of his vocation, but lives and dies upon the soil he tills, the same to-day he was two thou-

sand years ago. The son begins where the father left off, with the same system and the same implements. There is no change, and no progress, in a western or American sense.

While this class of tillers of the soil are called farmers, in our meaning of the word, there are no farms and no farmers in Japan, or at least in this part of it. Of the 150,000 square miles of surface of the whole country, two-thirds of it consist of mountain land, and much of this is rugged and precipitous. The valleys are small and the farms, so-called, are merely patches of ground, of a half acre or so.

The country is laid out into innumerable gardens, not into farms, and in gardening the Japanese have little to learn. Even with their old-fashioned implements they produce results equal to the best in any part of the world. The mountain sides are terraced into garden plats, and are cultivated to their very summits, so that the general aspect of Japan in this respect, is one of high cultivation and perpetual verdure.

In the neighborhood of Tokio, the seat of the general government, model farms have been established, I believe, and gardens of trial and acclimation. Cattle and sheep have been introduced, and modern implements to some extent adopted. But these things have not yet reached the island of Kin Shin. Farming here is done almost entirely by hand, and with the simple rude implements of the earliest ages.

When a plow is used, it is of wood, of the pattern known in Abraham's time, and drawn by a single bullock. Horses are seldom used in farm work. The bullock and horse are used principally as pack animals. The former are led by a rope through a ring in the nostril, and are very useful and docile beasts of burden.

The United States, it is well known, takes the lead of all other nations in the invention and manufacture of agricultural implements. The introduction here of simple hand implements of general and conspicuous use might be of advantage, after a while, to our manufacturers, when the Japanese become familiar with their use and have discovered their superiority over their own simple implements, but at present I would recommend only the consignment, as samples, as it were, of such things as hoes, rakes, spades, shovels, and the like.

There is no room for expensive machinery, such as reapers, &c., drawn by horses, for the configuration of the land is such that they could not be used.

Improved and cheap rice cleaners and polishers might find a market. But it must be understood that with this people, time is as yet of no object, and labor-saving machinery is of no consequence. The man supplies the place of the horse. The vehicle of the country, by which everybody travels for business or pleasure, is a small two-wheeled carriage called a "jinrikisho" drawn by a man in the shafts, and sometimes by another, who pushes from behind. These men are strong and muscular, and from habit have acquired the gait and swing of a horse. They will trot off with a man weighing 175 pounds at the rate of 7 miles an hour, and keep it up for the distance of 40 miles and more, at a compensation of 60 and 75 sens per day. A sen is a copper coin about one-third less in value than our copper cent. These vehicles, an invention of late years, have found their way into all parts of Japan, and are in constant use and of great convenience. They have superseded, to a great extent, the kaga or palanquin. The hire of a jinrikisho and man, of course, in Nagasaki, is 10 sens per hour, or 45 sens per day, for use about the city.

Rice is the chief product of the soil of Japan, as it is the chief article of food of the people. In the early days the treasury of the govern-

ment consisted of granaries of rice, and in the absence of a monetary system rice was the standard of value. All taxes were paid in this grain. Military and civil officers received hereditary incomes from the government in rice. Its cultivation was therefore of the first inportance.

As water was of prime necessity in its cultivation (rice being sown, transplanted, and grown under water), the early rulers encouraged, by edicts and examples, the building of canals and water sluices, that irrigation might be carried on to the fullest extent. Mountain streams have been thus conducted to the lower grounds and distributed through canals and ditches over many miles of country. In very many places, on low lands, at the base of mountains vast reservoirs have been constructed and drawn from, at the proper seasons, as often as desired. Lakes above the sea level have been tapped and the water carried through paved conduits to the plains below. This work was done centuries ago, by a succession of rulers, and has been maintained through all the years to the present time.

The rice lands in the plains and valleys are divided into small plats and gardens, for, as I have observed, there are no fields in the broad sense of fields, and are without fences, bounded only by water courses, fences being unneccessary from the absence of any ranging live-stock. The mountains are terraced into rice plats, or gardens, in like manner.

Preparations for sowing rice begin in March. The ground is broken, mostly by hand, or with a plow drawn by a single bullock. The plow is of wood; one angle, if I can describe it, extends upwards for the farmer to guide with; the other holds the traces of the bullock. The bullock is guided by a line through his nostril. There is a piece of iron shaped somewhat like a heart, fastened to the point of this plow. It makes a furrow about four inches deep and six inches wide. Hand laborers, by whom the great bulk of the work is done, dig the ground with a wooden handled implement shaped nearly like an A, with the iron blade almost as long as the handle, and about three inches wide, a regular back-breaking looking implement, though they seem to handle it with great ease to themselves and great effect on the ground. When the ground is broken the water is turned on to a depth of two or three inches; a few days later the ground is harrowed and made level, all lumps of earth being carefully broken, then it is ready for planting. A month or six weeks previous to this, however, a small patch of ground is broken up by the farmer, and flooded, when the seed rice, which has been soaked in water for a short time, is thickly sown on it. In a month or six weeks this has taken good root and stock and is ready for transplanting. The farmer then takes this growing rice, divides it carefully into small bunches, tied with a piece of rice straw, and transplants it in the ground prepared for it, a few spears together, in rows a few inches apart.

The plats are constantly supplied with water for about two months, when they are drained off, and allowed to dry. Early in October the rice is ripe and ready to be gathered, which is done by hand.

In gathering the rice the farmer uses an implement something like the old-fashioned reaping-hook, to cut the straw. It is then tied up into bundles and carried to his barn—a bundle at each end of a stick across his shoulders, or by bullocks and horses on pack-saddles. The rice is separated from the straw by the women and children of the family striking it against wooden teeth, set in a row, of sufficient width apart to permit the straw to pass, but not the rice-heads. After the separation the straw is used for various purposes, such as making bags to

hold the cleansed rice, thatching roofs, &c. They use it also as food for cattle and horses by cutting it up and mixing it with bran.

To clean the rice, it is beaten with sticks and sifted, and then run through a mill to take off the husks. This mill is constructed of two bamboo baskets, without bottoms, resting one on the other, which are filled with bamboo splints about a foot long and burnt at one end, which are placed perpendicularly in the baskets and cemented solidly together by mortar. The bamboo ends act as the cuttings on a flour-mill stone; the basket, bamboo splints, and cement as the mill-stones. The upper basket is turned around by a handle fastened at one side, which is arranged as a kind of crank and worked by hand.

After the rice has been cleaned in this manner, it is packed in straw bags of about 120 pounds each, and is then ready for market. Before it can be used as food, however, it is pounded by hand in a mortar, to thoroughly clean it from the husks.

The best rice in Japan is raised on this island, in the province of Higo, in the neighborhood of Nagasaki.

The average price of rice in this market is $2.40 to $2.80 a picul of 133⅓ pounds. This rice in the markets of Europe ranks second only to the rice of South Carolina. I might mention here, for the benefit of the culinary art, that the Japanese and Chinese are the only people outside of South Carolina that know how to cook rice. Prepared by them, it comes on the table as white and distinct as a drift of snow-flakes, and is a dish fit for an epicure.

The rice crop of Nagasaki ken, or province, is about 762,266.153 koku per annum. A koku is 2½ piculs, and a picul is 133⅓ pounds. The value of the yearly crop is about 7,184,988 yensatsu. A yensatsu is a paper dollar, of fluctuating value compared with the silver dollar, generally about 60 per cent. discount.

The whole annual rice crop of Japan is about 31,604,730 koku, of the value of 305,744,158 yen.

The yearly export of rice is about 6,827,076 catties (a catty is 1⅓ pounds), valued at about 210,861 yen.

An improvement on the original methods of the natives in cleaning rice has been introduced at Nagasaki by Messrs. G. W. Lake & Co., American merchants, residing and doing business in this city. They have erected a mill on an eligible site, by the bay, in the lower part of the foreign concession of Nagasaki, and have as much business in this way as their machinery can do. They have an 18 horse-power portable engine and boiler, manufactured by the Erie City Works, Pennsylvania, as the motor for their rice-cleaning machines, of 72 stamps. The engine crank shaft is connected with a shaft 3 inches in diameter and 6 feet in length, which rests on two metal bearings, and these bearings on two pieces of timber 13 feet long, 12 by 18 inches; these timbers are set one foot apart, with a connecting piece of timber at each end, and rest upon six upright timbers 6 feet long, 12 by 18 inches, mortised in timber above and below, and braced, which makes a frame-work for the machinery. On this shaft is fitted a 12-inch wheel between the two timbers. To the right and left of the pinion-wheel there are two cog-wheels, each 5 feet in diameter, each fitted to a shaft 3 inches in diameter and about 64 feet in length.

By the side of the cog-wheel, on the right, is another shaft 3 inches in diameter, fitted to the same shaft which connects with another 3-foot cog-wheel further to the right on a shaft 3 inches in diameter, 64 feet in length; say, three shafts of equal size and parallel to each other. On each of these three shafts there are 24 cams which lift the stamps (of

which, as before mentioned, there are 72 in all) twice at each revolution of the shafts, which revolve twenty-six times per minute. These upright stamps weigh about 125 pounds each, are about 12 feet in length, 3 by 9 inches in diameter, each with a 3½-inch slot 4 feet long cut in the center, through which the cam revolves beneath a roller. The lower end of the stamp which falls on the rice in the mortar is rounded and 3½ to 4 inches in diameter.

The bottom of the mortar is of hard, smooth stone, built up with cement, leaving a cavity about 20 inches in diameter and about 21 inches in depth, round, and shaped somewhat like a barrel, which holds about 130 pounds of rice; each stamp cleaning from one to one and one-half mortars of best grade of rice per day of twelve hours; of the second grade of rice it will clean 2 piculs, and of the third grade 3 piculs, per day.

The boiler requires about 1 ton of common Japan coal in twelve hours to generate 60 pounds of steam, which is all that is required. The coal costs about 2½ yens per ton. One engineer, one fireman, seven laborers, and one clerk, all natives, is the manual force employed.

There are in this vicinity, at this time, six other rice-mills owned by Japanese and constructed on about the same principle as the one described.

Instead of cams, however, to lift the stamps, they have affixed to the shaft two pieces of wood three inches square, and, as the shaft turns, the ends of these pieces strike against another piece of wood projecting from the stamps, and lifts it. As the stamp is about 22 inches from the shaft, it requires nearly double the power to move it.

Throughout the country where water-power is to be had, the natives use it. The overshot water-wheels have buckets fastened to the outside which fill, and the wheel revolves very slowly; cross-pieces are fastened to the shaft for lifting the stamps, as in the steam-mills.

Much of the rice in the country is cleaned by manual labor, in a wooden mortar. Several bands of straw rope are placed in the center of the mortar, which is filled with rice and pounded with a mallet. One man, by this process, will clean from one to two piculs of rice per day.

A. C. JONES,
Consul.

UNITED STATES CONSULATE,
Nagasaki, Japan, January 26, 1882.

TRADE AND COMMERCE OF NEW CHWANG FOR THE FISCAL YEAR 1881.

REPORT BY VICE-CONSUL BANDINEL.

IMPORTS.

Cotton Goods.—Shirtings, sheetings, lastings, and many others, show a falling off in quantity, and though a considerable increase is noticeable in drills, both American and English, the result was very unremunerative to importers, who in many instances had to sell their goods at lower prices than they paid for them in Shanghai. The increase in T-cloths is attributed to their cheapness as compared with sheetings and shirtings.

Woolen Goods show very little change. The increase in camlets is

due to a demand for dark gentian and bronze for the jackets of the southern troops stationed in this neighborhood.

Metals have again decreased; the speculative imports in 1878-'79 not being yet cleared off. There is indeed a trifling increase in the quantity of lead, yellow-metal, and tin plates, but it is doubtful if this indicates a permanent revival.

Opium.—As anticipated in my last report, there has been a great decrease in the import of Indian drug, and the revenue derived from this source will in future greatly depend on the inclement winters which so often injure the native poppy crops. It is an interesting fact that a small quantity of native opium was exported this year.

EXPORTS.

In *bean cakes* there is a decline of about forty million pounds weight, and an almost identical increase in the quantity of beans exported.

The former is partly due to the establishment of bean-cake mills in Swatow; the latter partly to this cause and partly to the destruction by floods of the bean crops in the vicinity of Canton.

Another small shipment of bean cakes has been made to Ceylon, although the only previous cargo (in 1876) paid little or no profit.

In *bean oil* the collapse of several speculators and the consequent panic of holders led to a heavy fall of prices, which induced an unusually large export in foreign bottoms.

Mr. Commissioner Man mentions a rumor that—

> The use of our bean oil has been discovered to be far more economical than the southern wood oil for builders' and painters' purposes; and I am informed that orders for a trial shipment have been received from England.

Castor oil was unusually dear last year, and the quantity exported was unworthy of record.

Wild raw silk.—The export of this article shows an apparent decline, which I attribute to a quantity having gone from small ports on the coast during last winter, in native craft, to Chefoo.

The local officials contemplate establishing a company in the heart of our silk district for the purpose of employing foreign machinery in the treatment of the raw article and in the production of silk piece goods and the like.

This company would in the first instance be under foreign supervision, and the cottagers would be desired to acquaint themselves with the most approved methods of rearing the worms, killing the cocoons, and reeling off the silk.

The imagination of the officials has been fired by rumors of large profits made by the German Filanda (under Italian supervision) established at Chefoo, and I have more than once had casual inquiries put to me as to the machinery, expenses, details of working, and probable profits of the concern.

The silkmen, on the other hand, have a not unnatural distrust of official co-operation, and are opposed to the introduction of foreign machinery on the ground that it will supersede manual labor and thus take away the employment of many of the poorer inhabitants.

NAVIGATION.

This table shows an increase in number and tonnage amounting to nearly 50 per cent. in the case of steamers, but almost imperceptible in that of sailing vessels. This I consider due to the comparatively low

prices of produce of all kinds and to the demand for beans in Kuangtung.

Freights were good all the season, but only a few vessels came here disengaged in the autumn of 1880, as the comparative scarcity of sailing vessels in the south rendered it certain that they could obtain remunerative charters on other lines if the rates offered to and from this port did not meet the approval of their agents or owners.

Throughout the season under review the unsettled state of Chinese politics has damped the ardor of speculators, and made the banks very cautious in granting facilities for trade.

A dispute between the wholesale and retail dealers, the former of whom were anxious to abolish credit sales, has also affected trade adversely, and several failures have occurred of houses that had bought produce in the interior on a falling market, and were compelled to sell finally at about half the original cost. Indeed, so disastrous has been the year that of the thirty native firms composing the guild sixteen have failed and ten are under suspicion.

The only houses that have done fairly well are the distillers of Samshoo and those engaged in the skin trade.

In view of possible complications, the Chinese have been busily employed in raising forts at this and other ports on the coast of Manchuria, and have stationed in this neighborhood a few thousand southern troops. Owing to fear of trouble during the winter from these last, a Chinese gunboat was docked at the west end of the town, and a dock in the foreign settlement was similarly prepared for, but not occupied by, a British gunboat.

J. J. FRED'K BANDINEL,
Vice-Consul.

UNITED STATES CONSULATE,
Newchang, China, December 22, 1881.

COTTON INDUSTRY IN CANADA.

REPORT BY CONSUL CRAWFORD, OF COATICOOK.

Among the many industries that have rapidly developed in the Dominion under the national policy, not one has made more rapid strides than the manufacture of cotton fabrics.

At the time of the adoption of the protective tariff there were in operation in Canada 170,000 spindles, and it had been many years in reaching this small number. In less than three years this number has increased, so by the end of the present year there will be upwards of 400,000.

The admission of raw cotton free, and heavy duties on the manufactured goods, has made the manufacture of cotton goods extremely lucrative. Some of the factories earned the past year 82 per cent. net profit.

The immense profit will still continue to stimulate and further develop this industry, and when we consider that Canada, in comparison with the United States, is a small consumer of cotton goods, the time is not far distant when there will be an overproduction; there will be more plain cotton goods produced than will be required for home consumption, and this fact has turned the attention of the capitalists to another branch of the industry now entirely neglected. There is not

in the Dominion a single manufacturer of prints or of print cloth—the *calicoes* are entirely of English and American manufacture.

A company, with ample capital, has been organized for the purpose of erecting and operating a factory and extensive print-works at Magog, within this consular district. Operations will commence as soon as satisfactory arrangements can be made with the owners of the water-power at that place.

As I stated above, the time is not far distant when the overproduction of cotton fabrics will tend to check this industry, or the producers must seek a market for their goods outside of the Dominion, and here a serious question arises: *How is Canada going into the markets of the world and compete with England and the United States, who have already a large foreign trade established?*

Canada is one of the many dependencies of England, and the great object of the British Government is to obtain and control vast provinces in different parts of the world, to have a market for her own home manufactures, and she has not, and doubtless will not devote much of her energies to the building up of manufacturing industries in her provinces, as she prefers to supply them with goods of her home production.

England and the United States have their representatives in all parts of the world, who are at work to build up and extend the trade and increase the commerce of their own country.

Canada has no representatives abroad. No ministers, consuls, or commercial agents, and in her present condition has no power or authority to appoint and maintain them. Without these agents to work for the interests of the several industries of the Dominion, her statesmen are beginning to realize the difficulties that will beset them when they attempt to compete with the older nations, who have already a well-established foreign trade, and whose agents are hard at work to increase it. They will be forced to adopt one of two measures—for one thing is quite certain, she must have representatives in different countries. This can be brought about by the English Government granting them the authority or power to appoint and maintain commercial agents at those places where *they* now have them, or by the entire independency of the Dominion.

The first would hardly be expected, as it would naturally bring the Dominion agents in conflict with the agents of England, and the English manufacturers would not be willing to yield any portion of the trade that they now control.

The second is being seriously discussed in all sections of the country, and what the final outcome will be remains to be seen, and it would be entirely out of place for me to express any opinion on that subject.

J. G. CRAWFORD,
Consul.

UNITED STATES CONSULATE,
Coaticook, Canada, March 29, 1882.

TRADE AND COMMERCE OF THE CAPE OF GOOD HOPE.

REPORT BY CONSUL SILER, OF CAPE TOWN.

This consular district is probably one of the largest in our service—embracing eleven ports of entry, and covering an area of territory more than five times greater than the British Isles. It has not been possible therefore for me, during a residence here of less than two months, to fully acquaint myself with all the commercial details of the district.

Cape Colony enjoyed a period of exceptional prosperity for several years prior to 1881. Favorable seasons had contributed to the increase of colonial products, and the influx of immigration justified large importations of agricultural and food supplies from abroad. Last year this season of prosperity was in a great measure checked by reason of a protracted drought causing meager crops and the death of thousands of cattle and sheep and many ostriches, and in some sections whole neighborhoods were devastated by wind and hail storms. Those unfortunate circumstances have had a depressing effect upon trade generally, but more particularly in the item of exports, which for the year 1881 amounted in value to only $20,500,000, showing a decrease as compared with the previous year of $650,000. These figures do not include diamonds or gold dust.

The value of imports to the colony during the year 1881 amounted to $46,130,000, showing an increase over the previous year of $7,820,000.

The number of vessels of all classes and nations which entered and cleared at the several ports of this consular district during the year 1881, 1,046 as compared with 879 for the previous year showing an increase of 167 vessels. Of this number 95 entered with cargoes direct from the United States, and out of which thirty carried American registers.

The great wealth annually produced by the diamond mining industry in this colony has enriched thousands of persons within the last few years and given steady and remunerative employment to tens of thousands of natives, and may be justly regarded as the main *trunk* to which all other branches of industry in British South Africa are merely subsidiary. Thousands of these precious stones are concealed from the vigilance of officials appointed to keep record of the findings—hence an exact estimate of the yield is not possible. But, from the most reliable information, there is every reason to believe that for several years past there have been considerably over $15,000,000 worth of diamonds annually exported from the colony, and every year the value increases.

What might be called a rival industry to diamond mining is that of ostrich farming in this country. This pursuit has probably rendered more solid and permanent benefit to the colony than any other. The annual increase in the production of feathers has been constant. In 1870 the value of feathers exported from the colony amounted in round numbers to $435,000; in 1880, to $4,410,000. It is reasonable to believe that this will continue to be a prominent industry in South Africa for many years to come, for it is claimed if values were to decline even 50 per cent. from the present standard it would still remain a profitable pursuit.

It is most satisfactory to me to be able to report that American goods are rapidly growing in favor and demand in this country. I am not in

possession of any data to enable me to render a comparative statement of American imports to this colony, but that they are on the rapid increase, my own observation as well as the assurance of prominent merchants here has left me no room to doubt. American plows, thrashers, reapers, and all manner of agricultural implements are in demand, and owing to their lightness and superior finish are preferred, notwithstanding the prejudice which English and German makers are constantly striving to engender against them. Omnibuses, wagons, carriages, and buggies are being largely imported from the United States, and meet with ready market, with good profits to the importers. Sewing-machines, clocks, canned goods, and Yankee notions all command ready sale and good prices. This trade is worth looking after, and if our merchants and manufacturers will follow up the advantage which they now have they will have their full share of it.

JAS. W. SILER,
Consul.

UNITED STATES CONSULATE,
Cape Town, February 5, 1882.

THE SARDINE TRADE OF BORDEAUX.

REPORT BY CONSUL ROOSEVELT.

Since the sardine preserved in oil has become a favorite delicacy on the American's bill of fare, and since the importation of this article decreases in the same ratio as the home manufacture increases, the consumer will be interested in the process of catching and preserving this delicious native of the deep, while the American packer may not object to learn a point concerning *la mode française.*

The old fishermen on the coast of Brittany and Vendée stoutly affirm that there are no real sardines in the sea except those which swarm near the French coast from the northern shores of Spain to the English Channel, and which they bring in by millions between the 1st of April and the middle of November.

But this characteristic vanity of the old fisherman may be indulged as far as it gives him any comfort, for the fact is well known that the sardine was originally found in the Mediterranean Sea, near the Island of Sardinia (from the Greek *Σαρδω*), and from which it derives the name. It belongs to the herring family, *Engraulus metella*, and is found in various parts of the world, though not always of exactly the same flavor.

But, confining ourselves to the sardine trade on the French coast, and the method of preparing them for the market, we shall find both interest and instruction.

This trade was founded at Kerneval, near Lorient, in 1834, by M. A. Gillet, who established a small factory there, and it grew rapidly to its now extensive proportions.

In the earlier part of the season, from the 1st to the middle of April, a few prospectors begin to investigate the lively shoals, and the firstlings of the "catch" are brought in with suitable ceremonies and dispatched with care and haste to the Paris market, which always receives the choice of everything, as it pays the highest price. The fish are then about the size of the anchovy, and for a month or so the fishing is confined to the waters from 1 to 2 miles from the shore off Sables d'Olonne, from which port some five hundred smacks make their daily sallies as long as the game remains in that vicinity.

The boats used are peculiar to this coast, and are precisely like those seen in old engravings of the ports of France. They are generally run by a crew of four men and a boy, who work on shares, and who frequently make two excursions in a day when the shoals are thickest. An exceedingly cold winter is always followed by a small and inferior catch.

From the 1st to the middle of May the sardines make a decided movement northward, increasing in size as they travel, and thus each station along the coast has its turn. Boxes that held from fourteen to eighteen at Sables d'Olonne will contain only from five to eight of those caught from the same shoals when they arrive off Douarneux, later in the season.

In recent years the largest catch was in 1878 and 1879, when a single boat frequently brought in from twenty-five thousand to thirty-five thousand sardines in a day, and the fishermen were glad to get from 1 franc 50 centimes (30 cents) to 2 francs (40 cents) per thousand for them.

There is great sport and excitement when the schools are full and the weather fair, but it is not all a picnic or a holiday with these tough old salts, as a glance at their careworn faces will testify. They often narrowly escape destruction by the sudden squalls that rise in the Bay of Biscay, and "Davy Jones" gets an annual offering from among their needy ranks. Still they are a good-hearted, melancholy looking lot of men, who are a very large and important factor in the population of the Atlantic coast of France.

The necessity of packing the fish as soon as possible after they are taken from the water has caused the erection of factories at every suitable point along the coast. Those which are cured in the factory nearest the scene where the catch is going on, are usually the best, while a decided difference is observed in those which are packed some distance from where they are caught. This is owing to the fact that the sardines thus transported are kept in salt long before cooking, which hardens the bones and renders the flesh tough. A large number of boats is always engaged in the traffic between the scene of the fishery and the factories that have been left behind by the migrating game, and for the extra inducements that are offered by factories which have their supplies thus cut off, the venturesome boats often come back a sail of from one to three days with cargoes of salted fish, which they have traded for at the scene of the catch.

Arrived at the factories the fish are carefully sorted and cleaned, after which they are placed in tinned-wire baskets and dipped into caldrons of boiling oil (at a temperature of from 125° to 150°), in which they are cooked for a certain time, and are then placed in the boxes and hot oil poured over them. Before the boxes are finally sealed up great care is taken to expel the air from them. This system of cooking the sardines in the wire baskets is a great improvement on the method frequently employed of putting them into shallow frying-pans, as it saves handling the fish, and prevents, to a great extent, the fall of particles to the bottom, which carbonize and impart a bad flavor to the oil, and hence to the fish, in the old process. If they are to be baked, instead of boiled or fried, they are hung in the ovens in the same kind of baskets.

The value of the sardine in oil depends upon two circumstances: first, the proximity of the packing factory to the scene of the catch, and second, the quality of the oil used both for cooking and for filling the boxes.

The more respectable packers, who depend largely upon the foreign trade, use a very good quality of refined olive oil, while others, and especially those who prepare this article *à bon marché*, for the cheap domestic demand, employ ordinary oils made from cotton seed, and *ara-*

chidi, an oil produced from the peanut. These oils come from 30 per cent. to 40 per cent. lower than a fair quality of olive oil, and 50 per cent. cheaper than a superior brand.

There are ten or twelve firms in Bordeaux engaged in both the foreign and domestic trade in sardines, by whom the great factories on the coast are supported. The largest recent yield in one year was that of 1879, when a total of six hundred thousand cases of 100 "quarter" boxes, or 60,000,000 boxes, were produced. Part of this stock is still on hand, and is of better quality than the produce of subsequent years.

The packing on this coast in 1880 was 450,000 cases of 100 "quarter" boxes, and that of 1881 about 350,000 cases, which indicates two years of a small catch. The value of the catch for these two years may be roughly counted at $8 per case; the yield of 1880 ranging 5 per cent. below these figures, and that of 1881 about 5 per cent. above them.

The unusually mild winter of 1881–'82 will probably be followed by an abundant crop in the season of 1882.

It is very difficult to make a correct estimate of the actual value of the fish in bulk before packing, or of the rate of wages paid to fishermen and other employés engaged in the trade, as prices are constantly varying on account of the simultaneous demand for the factories, and for consumption as fresh fish in Paris and other large cities in the interior. One thing, however, is certain: the cost of raw materials in 1880-'81 has been much higher than in 1878 and 1879, which were years of such great plenty that the stock which remained unsold at the close of 1879 served to depress the market during the last two years in spite of the decrease in the fishery. Though nominal quotations are higher than they were two years ago, they are actually below the cost of production during the last two years, and, as a rule, I am assured the packers for export have lost money, as the cost of the fish has often been as high as forty and fifty francs a thousand during this time, and the average price has been from 13 to 20 francs. In general the article has steadily declined in price since 1870, owing to the successful introduction of American packed goods, and the superior quality of American canned lobsters and salmon, which have made their way into the markets of Europe and are becoming great favorites.

In view of the fact that the sardines prepared here had greatly degenerated from 1860 to 1870, and that the article was improved, and the trade stimulated by American merchants and packers who entered into trade at the latter period, it seems a little singular that American packers at home should be forced, by public prejudice or other causes, to put French labels on their goods to secure their sale. It is only reasonable to suppose that the fish caught on the coast of Maine are quite as good as those found in the Bay of Biscay, and if the same care were taken in their preparation there would seem to be no good reason why the American fisherman and packer should not enjoy the full benefit of his industry, nor why the brand of the "Eagle" or the "Old Pine Tree" should not enter the market in full competition with those bearing a legend in a foreign tongue.

The total value of sardines exported from Bordeaux to the United States in 1880, was $676,386.48; and in 1881, $489,429.35, showing a decrease since 1880 of $186,957.13.

GEO. W. ROOSEVELT,
Consul.

UNITED STATES CONSULATE,
Bordeaux, France, February 6, 1882.

COAL IMPORTS OF ITALY.

REPORT BY CONSUL CRAIN, OF MILAN.

The development of the manufacturing industries of Italy is seriously impeded by the great cost of coal for steam power. This fuel not being produced in the country is brought principally by sea from England, and is so heavily burdened by Italian railway freights as to discourage the erection of factories requiring steam power. Hence, an active agitation is being carried on by capitalists for some measure of relief, and the Milan Chamber of Commerce has taken the initiative in making important recommendations. All signs point to a rapid growth of manufacturing in this country, and this, with the extension of the railway system, must, in the near future, vastly augment the consumption of coal. As the conditions under which American coals may be profitably introduced into Italy may soon be realized, the following extract from the report made the 3d instant by a committee of this chamber of commerce will be of interest.

The Chamber of Commerce of Milan, with the laudable solicitude which is habitual to it when treating of measures to favor the interests of our national industries and commerce, being again preoccupied with the high rates of the railway tariff for the transportation of coal, has charged the undersigned to study what modifications can be made therein so as to bring this principal factor of production to the industrial centers at the lowest possible prices. The undersigned having made a special examination of the question have the honor to present to the chamber their conclusions:

That the lowering of this tariff to a minimum is a necessity is evident from the fact that our manufacturers pay for coal three times as much as it costs the competing English industries, and twice as much as those of France. It cannot be objected that our numerous water-courses are adequate for the purposes of motive power, and economical, for these water-courses are not for the most part perennial, and steam must be substituted in times of scarcity. Besides, the more important industries require always the use of steam, and must consume coal on a large scale. To prove how great and constantly increasing is the consumption of this article, it suffices to state that its importation, which in 1878 amounted to 1,325,245 tons, rose in 1879 to 1,523,676 tons, in 1880 to 1,737,746 tons, and in the first nine months of 1881 to 1,646,249 as against 1,256,249 tons for the corresponding months of the preceding year.

Considerations of equity also demand a reduction in the railway tariff in order to place the industries of the interior on an equal footing with those of the maritime towns which are not subjected to railway expenses.

Coal costs one-third more in Milan than at Genoa. Those foreign countries possessing mines of coal, and consequently fully supplied with the article, nevertheless give every facility to deliver it to their manufacturers at the lowest prices. For example, in England the unity of classification of the railway tariff does not restrict the liberty of each company to adopt such rates as will best meet the wants of the particular district it serves, so that generally English railroad companies content themselves with a minimum profit in order to develop a given traffic. Thus on the Northeastern Railroad there are in force three different tariffs for the transportation of coal according as it serves—

1. For domestic consumption.
2. For manufactories.
3. For exportation.

The charges on coal for domestic use are double those on the same article supplied to manufacturers.

In Belgium the rates of coal transportation on the North Belgium Railroad are calculated upon the basis of 3.7 centimes per ton the kilometer, and upon the Belgian state lines the charge is established as follows: for one league (5 kilometers), 1.20 francs per ton, and 20 centimes for every additional league up to 15, or 4 francs per ton, for 15 leagues, 10 centimes for every additional league up to 20, and therefore 4.50 francs for 20 leagues; above 20 leagues 5 centimes for every additional league, and therefore 6 francs for 50 leagues.

In Austria also the industries are favored as much as possible by many and varying

special tariffs. The Undbahn, for example, alone has twenty-five, according to the quantity, the distance, and the direction the coal takes.

Finally, in France, where freights in general are dearest, we find that at Paris, which is further from the sea than Milan, coal arrives from Caen at 6 francs per ton, and that for a distance equal to that between Genoa and Milan, the Paris, Lyons and Mediterranean Company carry coal for 4.60 francs per ton, and the North Railroad for 5 francs per ton, while our charges are about 10 francs.

In Italy, coal pays, under the existing tariff, 6 centimes per ton the kilometer up to 100 kilometers; 5 centimes from 101 to 200; 4 centimes from 201 to 500, and beyond this distance 3 centimes. This diminution for a distance beyond 500 kilometers can profit no one, as our industrial centers are each nearer than that to the ports from which they are supplied.

The present tariff may not at first view seem too high, but it must be borne in mind that this indispensable fuel is necessarily costly to us because our country does not produce it, and we are compelled to procure it from abroad; and further, that before it can reach its final destination it is charged with many expenses besides those of transportation, such as unloading and loading, weighing of wagons, government tax of 2 per cent., and sundry minor items, so that coal from Genoa to Milan, which by the tariff should pay 5 centimes, in reality pays 6.6 centimes per ton the kilometer.

The committee therefore hold it to be an absolute necessity that the rates should be sensibly reduced for the development of our industries, and recommend that they be as follows:

For 100 kilometers or less, 4 centimes per ton; for 101 to 200 kilometers, 3.5 centimes per ton; beyond 200 kilometers, 3 centimes per ton, full wagons being always understood.

We think the government should willingly concede the aforesaid reductions for an article the importation of which will continue to increase by reason of such facilities. It would not appear to us justifiable, after the establishment of a new tariff on the 14th of November for the transportation of fuel of Italian production at only 3 centimes per ton the kilometer, that a diminution should not be made for foreign coal which independently of railroad freight is so costly to the consumer, and which for want of coal mines in Italy is necessary to our industries. Other recommendations heretofore made by the chamber should be adopted by the administration, especially the increase of the number of coal cars and enlarging their capacity to at least 10 tons each.

The house of Brambiela Brothers, of Milan, whose transactions in coal are probably as large as those of any coal dealers in Italy, have kindly given me the following quotations for English coals free on board coal cars at Genoa:

	Francs.
Cardiff, for steam power	31.50
Newcastle	28.00
Scotch best Ell	26.00
Scotch ordinary	25.00
Liverpool Crow Orchard	24.00
Newpelton, for gas	26.00
Newpelton, for furnaces	24.50

An exceedingly small quantity of coal is brought from France. Practically, the whole supply is from England, and there is no expectation of other European sources being opened up.

DUNHAM J. CRAIN,
Consul.

UNITED STATES CONSULATE,
Milan, January 17, 1882.

EUROPEAN IRON INDUSTRIES.

REPORT BY CONSUL SMITH, OF MAYENCE, GERMANY.

I have translated the following from one of the German newspapers:

Iron.—The latest intelligence from the European iron industrial districts, viewed apart from the English and Scotch raw-iron markets, is

very favorable, while from all parts of the German iron market a regular quantity of new orders at high fixed prices is reported. The flatness which has occurred in the English and Scotch iron trade is due to the large stock on hand, the continued augmentation thereof, the small shipments, and the rise in bank discounts. The Lower Rhine and Westphalian iron trade has been unfavorably affected thereby in so far that English raw iron, namely, Bessemer hematite raw iron, has been much more strongly offered. Thanks, however, to the customs duty on raw iron, these offers have not yet been able to reduce prices, but, on the contrary, the prices are kept by the furnaces at the former figures. As the most of these have closed their order-books for the second quarter, not many new orders are taken, as neither buyers nor producers are inclined to bind themselves for a longer period.

The steel manufactories, which mostly give their orders for rails, flaps, and bandages, six and twelve months or longer ahead, are sufficiently provided with raw iron for a long time, and there is a greater closing of orders on account of the steel manufactories having heavy orders on hand. At the cylinder manufactories the orders are not so great as at the Bessemer furnaces, but these factories are also very busily engaged, and new orders are only accepted on condition to deliver within three months. The prices in this branch have not altered, and very little change is to be expected, as only a few days ago all the manufactories on the Saar and Moselle raised their prices 5 marks ($1.25) per tonne (a tonne being 2,200 pounds avoirdupois), and the new prices, as especially stated in this case, are only when there is a double shipment of 10,000 kilograms (one kilogram=2.2046 pounds avoirdupois).

As has been already observed, the chief manufactories on the Rhine and in Westphalia have concluded a convention for the purpose of fixing the minimum price of bar-iron.

JAMES HENRY SMITH,
Commercial Agent.

UNITED STATES CONSULATE,
Mayence, February 17, 1882.

TRADE AND INDUSTRIES OF GERMANY.

REPORT BY CONSUL BULLOCK, OF COLOGNE.

EFFECTS OF THE TARIFF.

The reports of the German boards of trade for 1881 are far from being harmonious in their general estimates of the results of the year's business; and their recommendations as to what should be done in order to bring back prosperity disclose the widest divergency of opinion.

The boards of trade of the commercial cities lament the present condition of things, and see in the tariff laws of 1879, and the many proposed reforms, the causes that clog the wheels of commerce and stand in the way of a return to a sound and normal condition of prosperity. These views are expressed with caution, almost with timidity, but their clear import signifies little satisfaction with the measures of the last few years for fostering trade and industry, and, taken altogether, they fail to yield much comfort. On the other hand, the reports of the boards of trade of the great industrial centers of the country, especially of the iron-manufacturing districts, speak with some degree of encouragement as to the present, and with hopefulness for the future.

Concerning the effects of the tariff laws of 1879, their opinions are favorable; the protective features of these laws are warmly commended, and their extension generally recommended. The annual trade circulars and the reports of financial institutions take a cheerful view of the year's results, and, on the whole, present statements quite satisfactory.

The conclusion to be drawn from them is that, while the industries of the country have made no marked advancement during the year, they have successfully held their own, and if they have made no gain, they have not been fighting a losing battle as in the years from 1873 to 1878.

THE IRON TRADE.

The iron trade has shown marked fluctuations during the year, and has not been near so satisfactory as in 1880. The favorable anticipations of an increasing trade entertained at the beginning of the year were not realized, owing to the demand from the United States falling much below the anticipations of producers. It was confidently expected that the demand for pig iron and manufactured iron from the United States would at least equal if not greatly exceed the demand of 1879 and 1880, and the owners of furnaces made arrangements to increase the output.

Under these circumstances the stock of iron increased rapidly, and although the demand from the United States was fairly well maintained throughout the year, the total exports fell below those of the year preceding.

The exportations of manufactured iron and steel to the United States during the year have been better maintained than pig iron, as compared with the years 1879 and 1880.

For Bessemer steel there has been a good demand; and for steel wire and rods the demand has been steadily increasing.

The iron producers of Germany well know that the future of their industry depends largely, if not mainly, upon the requirements of the American markets, and therefore they watch with lively interest any indications of activity in railway extension in the United States.

The report that it is estimated by competent authorities that from 12,000 to 16,000 miles of new railway lines will be built and equipped in the United States during the current year has inspired the iron producers of Europe with hopes for better times in the near future. They are aware that, notwithstanding the great expansion which has taken place in the iron-producing capacity of the United States, such enormous schemes of railway building, with the renewals necessary for keeping up the immense system already in operation, will create a demand which can only be met by larger importations than ever of foreign rails.

EFFECTS OF EMIGRATION.

The large emigration from the industrial districts to America, especially of miners and iron workers, has been the cause of no little concern and complaint on the part of proprietors. Government has sought to interpose obstacles, and every difficulty possible under the laws has been raised to impede the tide of emigration.

A gentleman largely interested in the coal and iron industries, and a director of one of the largest companies in the Rhine province, told me that the operations and output of several companies had been considerably interfered with by their operatives leaving in such great numbers for the United States, where they increased the competition which would before many years make the exportation of iron from Europe to America impossible.

The better informed and more intelligent investors and capitalists here are without reserve in expressing their opinions that our comparatively undeveloped deposits of coal and iron; our cheap food and cheap land; our improved methods and labor-saving machinery; the better condition and intelligence of our workmen, will, before the lapse of many years, enable us not only to easily supply our home demand in the future, but to compete successfully for the markets of the world in iron and steel.

THE SUGAR INDUSTRY.

The sugar industry and trade of Germany may truly be said to be in a prosperous condition, and during all the long period of business depressions this industry was least affected.

At present Germany exports more sugar than any other country of Europe, and the statistics show that the exportation is steadily increasing. The sugar-export trade of Germany now exceeds that of France. England at present receives more sugar from Germany than from France, and even more than from any single one of her colonies. Java and the English West Indies export less sugar than Germany. Cuba only, in this respect, remains ahead of Germany. The method of taxation and the drawback allowed by the government no doubt greatly stimulate the exportation of sugar.

A tax of 0.80 mark per centner (110.5 pounds avoirdupois) is levied upon the beet-roots, and a drawback is allowed upon sugar exported on the basis that 11.75 centners of beets yield 1 centner of sugar. The sugar manufacturers have succeeded, through the cultivation of a beet especially rich in sugar, and through improved methods of manufacturing, in gaining 1 centner of sugar from 10, and, in many instances, from 9 centner of beets, so that a bounty of 1.40 marks to 2.20 marks per centner is given upon sugar exported.

It is estimated that the sugar production for the season of 1881–'82 will reach 11,200,000 centners, of which 5,000,000 centners will be exported, so that the government during the year will actually pay as bounty upon sugar exported from 7,000,000 to 9,000,000 marks. This bounty enables the German sugar manufacturer to compete in markets where he would otherwise scarcely be able to make remunerative sales.

The exportation of refined sugar from Germany to England has shown a very favorable annual increase for the last few years, and there is no question that the English refiners have been made to feel German competition, as well as the raw-sugar producers of the English colonies.

THE PROPOSED TOBACCO MONOPOLY.

It may not be without interest to the Department and the readers of the Consular Reports to learn something of the efforts being made to introduce the tobacco monopoly into Germany, especially as the adoption of this system by Germany would very materially affect one of our principal markets for leaf tobacco, and close it altogether for American cigars, cigarettes, and manufactured tobacco, the importation of which into Germany has already become of considerable importance and is steadily increasing.

This monopoly scheme was first officially brought forward in 1879, and after elaborate discussion by the committee which had it under consideration, was reported upon adversely; but the advocates of the scheme have never abandoned hopes of ultimate success, and are now working as industriously as ever to attain their object, and, indeed, if public

opinion is any criterion, the accomplishment of their purpose is only a matter of time, and of no very remote time either.

By the annexation of Alsace and Lorraine, the German Imperial Government came into possession of a large tobacco manufactory of the French *Régie*, which has been greatly enlarged in capacity, and is worked for the benefit of the "*Reichslande*," as these annexed territories are called.

It would be improper for me to make the assertion that the imperial authorities are making use of the Strasburg manufactory to further the monopoly scheme; but it is a fact that this assertion has been made in the public prints, and has found expression in the highest legislative councils of the nation.

Branches of the Strasburg manufactory for the sale of its produce have been extensively established throughout the empire, and if they have not succeeded in gaining public opinion over to the monopoly scheme, they have at least made lively competition, to the detriment of private dealers.

The proposed monopoly seems to be less unpopular than when the proposition was first brought forward. This is probably, in some degree, owing to the public becoming familiar with the idea and looking with less suspicion upon it than before the question had been so thoroughly discussed.

Although the Germans have before them the example of France, which is acknowledged to be reasonably successful, they are not prepared to adopt the tobacco monopoly until convinced that it is a pressing public necessity for the increase of the revenue. The imperial authorities allege that such necessity has long since arisen; and when a majority of the representatives of the people in the Reichstag can be brought to concur in this view, the days of the private tobacco dealers in Germany will have been numbered, and then will begin a regular hegira of cigar-makers and tobacco workers to America.

WAGES AND COST OF LIVING.

The tabulated statements which follow show the rates of wages and the prices of victuals, &c. (reduced to United States standards), as they prevailed at Cologne at the beginning of the present year.

It will be observed by comparison with the tables forwarded with my report for 1879, that where changes in the rates of wages and prices of the necessaries of life have occurred they have not been to the advantage of the workmen.

TABLE OF WAGES.

	Per day.
Bricklayers	$0 48 to $0 71
Masons	50 to 71
Carpenters and joiners	50 to 71
Gas-fitters	60
Painters	60
Plumbers	60
Blacksmiths	67 to 71
Cabinet-makers	71
Saddlers	72
Tinsmiths	72
Laborers	43 to 57
Founders and molders	60 to 85
Smiths and locksmiths	60
Turners	67
Boiler-makers	67
Engine-fitters	71 to 77
Apprentices	24 to 26

TABLE OF PRICES.

Bread:		
Black	1 lb. avoirdupois	$0 02
Brown	do	03
White	do	04
Beef:		
With bones	do	16
Without bones	do	19
Veal	do	18
Mutton	do	18
Pork:		
With bones	do	18
Without bones	do	21
Lard	do	17
Butter	do	28
Butter, better quality	do	30
Cheese, Dutch	do	18
Coffee	do	32
Coffee, better quality	do	40
Sugar	do	11
Potatoes	do	$0 01 to 01½
Beans	do	06
Coke	per ton	3 88
Coals	do	2 95
Petroleum	per liter	04½

GEO. E. BULLOCK,
Consul.

UNITED STATES CONSULATE,
Cologne, Germany, January 19, 1882.

TRADE AND COMMERCE OF MALTA.

REPORT BY VICE-CONSUL EYNAUD.

I transmit herewith the annual report on the trade of the island of Malta and of Gibraltar for the year 1881, together with such other information as I have been able to gather.

With the exception of articles liable to import duty, the authorities do not require importers to give either values of merchandise entered at our custom-house, or a specific statement of quantities, beyond numbers of packages, nor to present outward manifests for goods shipped from this; hence in some respects statistics must be incomplete.

The general trade has been fairly prosperous during 1881. The importations have been large in comparison to other years, but there is every indication that those engaged in trade are obliged to satisfy themselves with small margins of profit. I observe also that American produce is coming more and more into consumption here, unfortunately, however, not by direct trade, but through British and continental markets, which must to some extent enhance its cost.

Coal.—As will be seen by the following statistics, Malta continues to hold her pre-eminent position among the coaling stations in the Mediterranean, and all engaged in that branch of business, it is generally conceded, are doing well.

When quarantine was established on arrival from places afflicted by contagious diseases, the government did not hamper the work of coaling by unnecessary restrictions, but were more liberal than the authorities at other Mediterranean ports. At the present moment ships are given free pratique from all ports in the East, excepting those from the Red Sea ports, or when Mohammedan pilgrims are on board.

The importations of coal into Malta during 1881 amounted to 450,955 tons (2,240 pounds), all excepting 70,883 tons from South Wales; the latter figure was almost entirely from other parts of England and from Scotland.

The total of 1881 is therefore the largest so far, as the following amounts show:

	Tons.
1880	374,036
1879	343,803
1878	350,042
1877	246,766
1876	297,787
1875	262,115
1874	323,365

Navigation.—The arrivals in our harbor in 1881 were as follows:

British men-of-war and transports	139
Greek men-of-war	8
German men-of-war	4
Dutch men-of-war	4
Russian men-of-war	3
Portuguese men-of-war	2
Man-of-war, each, of the following flags, viz:	
Austro-Hungary	1
Brazil	1
Denmark	1
France	1
Sweden	1
Italy	1
Merchant steamers	3,885
Merchant sailing vessels	1,728
Steam and sailing yachts, all British excepting one French	51
Total	5,830

Against 4,962 in 1880, and 5,043 in 1879.

Merchant steamers arrived in 1881.

Nationality.	No. of vessels.	Registered tonnage.
British	3,175	3,287,296
French	285	148,531
Italian	278	109,581
Belgian	32	36,670
German	27	20,937
Norwegian	23	22,557
Greek	21	16,735
Ottoman	13	3,841
Spanish	10	16,064
Danish	7	6,283
Russian	6	6,780
Dutch	3	3,089
Swedish	3	2,019
Chinese	1	1,284
Borneo	1	58
Total	3,885	3,681,725

Against a total of 3,105 merchant steamers in 1880, which measured 2,294,807 tons register, and comprised 2,561 under the British flag.

Mercantile sailing vessels arrived in 1881.

Nationality.	Number of vessels.	Registered tonnage.
Italian	1,034	62,965
Greek	288	55,798
British	197	25,717
Tunisian	63	2,354
Ottoman	59	5,160
Austro-Hungarian	58	19,899
Russian	11	2,964
Montenegro	10	979
French	4	573
Dutch	3	557
American	1	936
One each of the following: Norway, Germany, Spain, Denmark, and Portugal	5	1,170
Total	1,728	179,072

Against 1,699 merchant sailing vessels in 1880, measuring 145,425 tons register. Of 1,075 vessels that have called here, bound to or coming from eastern ports via the Suez Canal, 11 were men-of-war, 22 government transports, and 1,042 merchant steamers, these last measuring 1,365,263 register tons, all having on board 37,720 passengers, including military, against a total of 809 mercantile steamers, measuring 1,378,489 tons, 27 men-of-war, 32 transports, and 46,289 passengers, which called here in 1880, and a total of 596 arrivals, 43,426 passengers, and 769,961 tons of merchant shipping, which put in here in 1879, bound to or from ports in the East, through the Suez Canal.

American tobacco.—In 1881, the following importations, the growth of the United States, were made, viz: Purchased in and shipped from England, 533 hhds., 255 cases; from the United States, 230 hhds., 17 cases; from Antwerp, 15 hhds.; from France, 10 hhds., 44 cases; from Italy, 22 cases; 788 hhds., 338 cases, against 1,076 hhds., 195 cases imported in 1880; 1,433 hhds., 111 cases in 1879; 874 hhds., and 362 cases imported in 1878.

Of American manufactured tobacco, cavendish, &c., for chewing and smoking, the importation in 1881 was 1,610 packages bought in and shipped from England; 298 packages bought in and shipped from the United States; 190 packages bought in and shipped from Gibraltar; total 2,098 packages; also, 252 cases cigars, nearly all of German manufacture, aggregating 2,350 packages, against a total of 2,982 packages (including 228 cases cigars) in 1880, and 2,477 packages of manufactured tobacco and 197 cases cigars in 1879, and a total of 2,162 packages manufactured tobacco and cigars in 1878.

There is no import duty or tax on the sale of any kind of tobacco in Malta.

At one time a considerable quantity of American tobacco in leaf was manufactured into cigars of the cheapest description, but the industry has declined, as the total imports of leaf for this year shows when compared to former years. The demand, therefore, although now limited, continues for cheap sound western lugs for fillers, and coarse and inexpensive wrapper, both of chestnut and dark chestnut color.

In American manufactured tobacco and moderate priced cigars the trade has been good, being for the supply of the British garrison and the crews of the increasing number of steamers calling here to replenish with coal and provisions.

Petroleum.—This market only takes refined in cases. The stock was as follows:

	Cases.
In depot on January 1, 1880	16,669
Importations in 1881	93,042
Total	109,711
Delivered from January 1 to December 31, 1881	52,140
In depot on January 1, 1882	57,571

The importations in 1881 were all from New York and Philadelphia direct, excepting 5,190 cases from Genoa. The deliveries in 1880 were 46,559 cases, and importation 21,494 cases. In 1877, the importations were 48,480 cases. This trade is being worked just now with little or no profit to importer.

Alcohol.—The importations in 1881 were 726 barrels American, 316 hogsheads and 25 barrels German—1,067 packages in all. Of these, 344 barrels were bought in New York and shipped to this. The remaining American was procured in Marseilles or Italian ports.

The importation in 1880 was 717 hogsheads and barrels, and 1879 from New York alone we received 700 barrels.

Flour.—Not being imported for bread making, the demand is only from pastry cooks and confectioners and to supply shipping. There were imported in 1881, 2,791 barrels and bags, nearly all of the finer kind, from Marseilles, and a small portion of American from England. In 1880 the quantity entered was 1,971 barrels and bags.

Wheat.—No American comes here, as only hard qualities are used, and these come from neighboring ports and the Black Sea.

Corn.—Not any American is brought here and very little of other growth, as the duty paid on it, 18 cents per bushel, is very heavy on so poor an article.

Of *lard*, 1,225 barrels were imported in 1881 against 1,960 barrels in 1880. All excepting a very inconsiderable quantity was American, but bought in England.

Of *ham and bacon*, 960 packages were imported in 1881, by far the larger portion being American, against 730 packages in 1880. None, however, came direct from the United States.

Cheese.—The total imported in 1881 was 2,951 boxes, against 2,332 in 1880. These were almost all American manufacture, but procured in English markets.

Salted butter.—In 1881, 4,364 firkins were entered against 2,828 in 1880. Nearly all, however, were Irish made.

Florida water, to the extent of 3,642 boxes of one dozen bottles each, were brought here in 1881, against 1,230 boxes in 1880. All were genuine New York brands, and 3,400 came direct from New York.

Cleaned rice.—The total imports in 1881 were 34,362 bags (224 pounds each). Of these 16,603 bags were from ports in British Burmah direct; 11,740 bags of these direct importations came here for transshipment to other Mediterranean ports. The remainder of the imports in 1881 was Burmah rice from England, and only a very small portion was Italian or Egyptian. The imports in 1880 were 27,914 bags; in 1879, 25,507 bags; and 1878, 21,811 bags. No rice came here from the Southern States of the United States.

Codfish.—Owing to the high range of prices for the catch of 1881, a very small quantity was imported, viz, 1,076 bales, or about 1,200 quin-

tals. These were received mostly from Italian ports. In 1880 from British North America we received 8,785 quintals, and of Norwegian 1,302 quintals arrived.

Of *rosin and lumber*, none has been brought here from the United States in 1881, although some years ago a considerable quantity was imported.

EXPORTS.

Potatoes have become an important branch of agriculture. Two crops are taken—one in winter and the other in spring. The latter is the more important. Last year both crops were almost entire failures for want of seasonable rain. This year the prospects for the spring crop are very good.

Cumin seed, aniseed, squills, oranges, lemons, and orange trees, the produce of this island, are exported in a limited number and quantity.

Olive oil being an article subject to duty when entered for local consumption, the government receives it from importers into cisterns, charging $1.12 per tun of 300 American gallons for rent per six months, and issues warrants for the same. The government has cisterns of the capacity of upwards of 600,000 gallons. When re-exported no duty is paid. The quantity received was as follows:

	Gallons.
In 1877	560,700
In 1878	364,200
In 1879	498,900
In 1880	329,100
In 1881	914,100

The large increase last year is attributable to the French invasion of Tunisia, when the oil was sent here for safe custody, and also to the large crop accumulated in 1879–'80.

The price here to-day is $58\frac{5}{16}$ to $59\frac{9}{16}$ cents per American gallon, free on board ship, in casks of 45 gallons.

TRADE WITH THE UNITED STATES.

During 1881, the only arrival under the American flag was a barque of 936 tons on her way from Trieste to New York. In 1881, arrived with cargo for Malta, from the United States, seven Italian and one Austro-Hungarian sailing vessels. Four British steamers, five Austro-Hungarians, and four Italian sailing vessels, with cargoes, called here on their way from the United States bound to other ports. Four British steamers, two Italian, and one Austro-Hungarian sailing vessels, loaded from other ports, bound to the United States, put in to Malta. Ten British steamers and one Italian sailing ship cleared from this port in ballast to load at other ports for the United States.

Besides, by casual opportunities, goods can be shipped to New York and Boston by the Transatlantic Steamship Company via Marseilles, the Florios steamers via Sicily, and via Liverpool by several lines of steamers that call here regularly bound to the latter port.

Consular invoices were obtained at this consulate for the following goods shipped from this port for New York in the year 1881, viz, 343 boxes dates, 88 bags squills, 299 bags cumin seed, 200 boxes lemons, and 1 hogshead of wine.

ENTRIES FOR LOCAL CONSUMPTION.

The following are the quantities of articles paying duty that passed through the custom-house for local wants, viz:

Articles.		1881.	1880.
Wheat	bushels	810,784	383,012
Indian corn	do	5,342	4,244
Barley	do	57,600	42,172
Beans	do	72,280	55,916
French beans	do	2,880	.....
Chick pease	do	65,888	.....
Pease	do	2,640	.....
Flour and maccaroni	pounds	484,575	.....
Saggina	bushels	54,448	.....
Vetches	do	36,824	.....
Locust beans	pounds	3,903,725	.....
Cotton seed	do	7,513,275	51,600
Potatoes	do	7,507,325	.....
Olive oil	gallons	317,805	289,295
Superior wine	do	15,221	.....
Inferior wine	do	1,783,586	.....
Beer	do	418,792	.....
Alcohol, including spiritnous liquors	do	115,818	.....
Bullocks	heads	6,337	10,119
Horses	do	141	.....
Mules	do	11	.....

On the foregoing articles import duties were levied at the following rates, equivalent in American currency, viz: Wheat, 30 cents; Indian corn, 18 cents; barley, 12 cents; beans, 6 cents; saggina, 9 cents; other inferior grain, 15 cents per bushel; pease, chick pease, and netches, 6 cents per pushel; locust beans and cotton seed, $6.85 per 10,000 pounds; beer, $6.40 per 100 gallons; wines, the value of which exceeds £15 per pipe, $25.60 per 100 gallons. All wines costing less than £15 per pipe, $5.33 per 100 gallons. Spirits of any strength of proof by Sikes's hydrometer, viz, London proof, $51.20 per 100 gallons, and so in proportion for any greater strength of proof; olive oil, $2.22 per 100 gallons; potatoes, $1.14 per 1,000 pounds; bullocks, $2.40 per head; horses and mules, $4.80 per head.

C. BREED EYNAUD,
Vice-Consul.

UNITED STATES CONSULATE,
Malta, January 31, 1882.

THE HARBOR OF RIO GRANDE DO SUL.

REPORT OF VICE-CONSUL PRELLER.

In my commercial report of September 30, 1881, I alluded particularly to the unfavorable state of the bar at the entrance of the harbor, but stated that the hope was entertained that a new bar would probably open to the southward.

Unfortunately this expectation has not been realized. On the contrary, from bad to worse has been the order of the day, and matters continue so very unsatisfactory that I feel it to be my imperative duty to bring the true position in which shipping coming this way is placed under the notice of the Department, as due publicity seems requisite in order to avoid great delay, deterioration of cargo, or even disaster.

I mentioned in my above-referred-to dispatch that vessels should, on no account, load to a maximum draft of over 11 feet. For some months since this draft has proved to be excessive, and the best proof is that some twenty vessels, after long delay outside (one in fact after discharging a portion of her cargo of railway iron) proceeded on to Montevideo where they are forwarding a part of their cargoes to this.

Vessels outward bound were, in several instances, detained at the bar four, five, and nearly six months, and had also to discharge part of cargo in order to get over.

All charters made now limit their draft of vessels to load produce here to about 10 feet; the consequence is that the majority of the craft in port are able to load little better than half cargoes.

Freights naturally have advanced materially, ¾ cents per pound being paid for dry hides, and rates must rule very high so long as the bar remains as it is.

The commercial community, alarmed at the state of semi-blockade of the port, have not been behind in endeavoring to remedy the evil with palliative measures, such as drags and chains, but without the slightest result. Strong representation was also made to the imperial government, who forwarded down a war steamer with a commission to make the bar a subject of special study, and sundry dynamite torpedoes were exploded on the bar without any permanent improvement, or rather with a most transitory effect.

It seems clear that costly works of art will be the only effectual means of remedying the evil, and these not being as yet even projected, I think I am right in recommending that vessels bound to this province should in no case exceed a draft of 10 feet, English.

Perhaps the improved rate of freights may give a favorable opportunity to some of the light-draft schooners under the American flag, which has been such a stranger here for many months, and should the Department think fit to publish my observations, I feel confident that profitable employment will be obtainable in the shape of round charters for light-draft vessels. At the present moment there are twenty-five vessels outside and 22 inside waiting to cross.

WILLIAM A. PRELLER,
Vice-Consul.

UNITED STATES CONSULATE,
Rio Grande do Sul, January 21, 1882.

THE TOBACCO TRADE OF THE NETHERLANDS IN 1881.

REPORT BY CONSUL ECKSTEIN, OF AMSTERDAM.

As represented to me by parties prominently identified with this trade here, it is the threatened future of Germany's tobacco trade and tobacco industry which in a marked degree influenced the tobacco markets of Europe in 1881.

Those who were inclined to believe the German "Reichskanzler" would abandon his proposed scheme of establishing a government tobacco monopoly in consequence of the pronounced opposition thereto by a "commission of inquiry," in 1878, seem to have again become fully convinced that its introduction is but a matter of time, as the "Reichskanzler," apparently, remains unmoved in his conviction that its establishment is as practicable as it is necessary or indispensable.

The effect of all this formed, to a certain extent, an obstacle to a more regular or sound development of the trade, causing the same to be more or less fitful throughout the year.

As many governments regard tobacco as one of the articles especially calculated to bear a heavy tax, the question of quality is becoming more and more one of less consideration.

A "leaf" especially advantageous for cigar-wrappers, and which, therefore, can the better stand the taxation, is becoming more and more in demand with cigar manufacturers.

It is thus explained how Sumatra tobacco has, in comparatively so short a time since it has been to any extent brought into the market, found such general favor in cigar fabrication.

This tobacco hardly ever fails coming into this market otherwise than carefully treated and assorted; it has a fine and broad leaf, and is very light of weight, so that 1 kilogram or at most 1½ kilogram is sufficient to furnish wrappers for 100 full size cigars.

This tobacco is moreover generally of a fine tissue and of a beautiful color; altogether it combines elements which at the present time render it to be peculiarly in demand and highly prized by consumers as well as by manufacturers, and on those accounts the trade in it during last year was well maintained; much better than in any other sort of tobacco.

A few years ago Sumatra tobacco in small lots was shipped to the United States, where its peculiar qualities were readily recognized, but it could not compete against "seed-leaf" in the matter of price. But in 1881, when, as I understand, the seed-leaf crops turned out to be both short in quantity and poor in quality, and when the prices of "Sumatra" ruled throughout somewhat lower than formerly, on account of 1880's prolific crop, quite an export of the article to the United States sprung up early in the year, and which towards the latter part of the same assumed considerable importance.

During the year Amsterdam has been visited by several wholesale dealers in leaf tobacco from New York, and quite a number of parties engaged in the trade here have gone to the United States for the purpose of effecting sales and, if possible, establishing permanent connections.

From this consular district were shipped as per declared invoices, and principally to New York, 2,791 bales. Shipments of the article to the United States have also taken place from the ports of Rotterdam, Bremen, and Hamburg, but I am not informed as to the quantities exported from those places.

The total quantity of Sumatra tobacco brought into the market at Amsterdam in 1881 was 65,330 bales, as against 55,000 bales in 1880.

Whether the export trade of this tobacco to the United States can and will be maintained, increase, or diminish, is matter of conjecture, and would appear largely to depend upon the extent and character of future crops of "seed-leaf."

If dark-colored leaves continue to remain as much in demand in the United States as has been the case in 1881, it would seem that to a certain extent the trade may be kept up, for the reason that on the continent of Europe there is but a very limited demand for dark-colored tobacco of the kind in question, the light-colored being altogether preferred.

Maryland tobacco.—As to the imports of and trade in Maryland and other American tobaccos there always has been, and still is, great complaint made that, on account of the peculiar manner in which the trade

is carried on here, both direct and indirect, no data is obtainable from which any nearly correct information could be given as to actual volume of the trade therein in any given period. It is, however, claimed that the imports of and trade in Maryland tobacco are decreasing.

The quality of this tobacco, of the crops of 1880, was found to be most satisfactory, and the (for Dutch manufacturing purposes) best adapted "middle sorts" were, as in the previous year, generally scarce in this market in 1881, and easy to place.

Maryland tobacco of ordinary quality attracts little attention here.

Kentucky and Virginia tobacco.—Transactions therein have been very unimportant during the year, and greatly to the regret of interested parties, as they proved specially profitable in other markets; but there being no stock of it of any consequence here, dealers benefited but very triflingly from the rise in prices in these tobaccos when it occurred.

Seed leaf.—This tobacco attracted considerable attention, and is used here principally for "cinders," and all that was imported of it during the year could be readily disposed of.

For material and information enabling me to furnish this report and the following tabular statements I am indebted to G. Harkema, esq., tobacco broker, at Amsterdam.

Statement showing the crop of Java tobacco each year, from 1871 to 1880, and the average price realized from its sale.

[Per ½ kilogram in United States currency.]

Crop.	Leaf tobacco.	Average price.	Grossoh or scrub.	Average price.
	Bales.	*Cents.*	*Bales.*	*Cents.*
1871	81,270	41½	47,730	10
1872	127,525	40⅜	79,826	7½
1873	195,591	27½	44,415	6¼
1874	143,563	37½	35,765	6¼
1875	140,942	24⅛	41,235	4½
1876	165,585	24	26,283	7½
1877	100,945	16	45,631	5½
1878	108,620	30½	50,890	6¼
1879	41,390	31½	8,830	7½
1880	100,059	25	38,025	6¼

Statement showing the crop of Sumatra tobacco each year, from the commencement of its culture or from 1865 to 1880, and the average price realized from its sale.

[Per one-half kilogram in United States currency.]

Years.	Quantity.	Average price.	Years.	Quantity.	Average price.
	Bales	*Cents.*		*Bales.*	*Cents.*
1865	189	59½	1873	9,238	73
1866	174	45	1874	12,811	61⅛
1867	224	28	1875	15,147	69
1868	890	57	1876	28,947	62½
1869	1,381	51⅛	1877	36,167	51½
1870	3,114	49	1878	48,202	50⅜
1871	3,922	55	1879	57,544	47½
1872	6,409	53	1880	64,923	45⅜

Statements showing the state of the tobacco market at Amsterdam and Rotterdam in 1881.

AMSTERDAM.

Description.	Java.	Sumatra.	Manila.	Brazil.	Havana.	Seed-leaf.	Maryland.	Kentucky and Virginia.	Stems.	Coram.	East India.	Siam.	Turkish and Grecian.
Stock January 1, 1881	2,649	477	150	48	....	154	1,259	233	29	....	4,000	....	.....
Imported in 1881	81,166	59,346	.....	1,098	54	715	3,639	251	27	85	.....	28	8,000
Sold in 1881	77,918	59,734	25	406	54	869	4,112	433	41	85	1,000	28	7,500
Stock December 31, 1881	5,897	89	125	740	....	....	786	51	15	....	3,000	....	500

ROTTERDAM.

Description.	Java.	Sumatra.	Manila.	Brazil.	Havana.	Yara.	Seed-leaf.	Maryland.	Virginia.	Kentucky and Mason County.	Stems.	Turkish and Grecian.
Stock January 1, 1881	2,301	.....	420	700	93	289	924	1,450	330	198	130	.....
Imported in 1881	68,866	5,502	.....	190	400	573	595	3,894	206	345	50	2,289
	71,167	5,502	420	890	493	862	1,519	5,344	536	543	180	2,289
Sold in 1881	61,374	5,502	.....	546	213	359	858	4,279	512	444	70	2,207
Stock December 31, 1881	9,793	.....	420	344	280	503	661	1,065	24	99	110	82

The figures in the two next above statements stand as to Maryland, Virginia, and Kentucky tobacco, for hogsheads; as to seed-leaf, for cases; and as to the rest, for bales.

D. ECKSTEIN,
Consul.

UNITED STATES CONSULATE,
Amsterdam, March 7, 1882.

ROUEN AS A SEA-PORT.

REPORT BY CONSUL RHODES.

In a contract recently submitted by American shippers to the London Corn Trade Association, certain rates and rules were laid down for the transportation of American products to ports in the United Kingdom and the Continent, except Rouen. A communication from the president of the Chamber of Commerce of Rouen has been received at this consulate, asking the cause of this discrimination, which I have been unable to furnish.

In view of this discrimination, it may be proper for me to make here a brief statement in reference to Rouen as a maritime port. Situated on the river Seine, in communication by river and railway with Paris, and about eight hour's towage from the sea, it has become, in importance, the fourth commercial sea-port of France. Within five years its maritime towage has increased from 800 to 1,500,000 tons, nearly one-third

of which came from the United States, showing the importance of the trade in that direction.

The tonnage and depth of water drawn, of some of the largest ships entering the port of Rouen, are here given:

Italian ship Fortunato, drawing 21 feet 7 inches, with 1,420 tons.
Italian ship Luce, drawing 21 feet 4 inches, with 1,100 tons.
British ship Hazlehurst, drawing 21 feet 4 inches, with 1,300 tons.
British steamer Longshaw, drawing 21 feet 4 inches, with 2,400 tons.
American ship Matilda, drawing 20 feet 9 inches, with 1,200 tons.
British steamer Camden, drawing 19 feet, with 2,000 tons.
British steamer Castlefield, drawing 20 feet 6 inches, with 1,900 tons.

New docks are being constructed at Rouen for its increasing business, and the river to the sea continually being deepened. Of the 5,189 vessels which have come to this port during the last five years, only 22 have met with accidents; of these, 12 have been floated again without damage, and 10 have been more or less damaged. During the year 1880 no vessel was lost. The officers of an insurance company here inform me that the rates are the same for the port of Rouen as for the Mediterranean ports. As far as I can learn, the ship expenses appear to be the same here as at Havre.

ALBERT RHODES,
Consul.

UNITED STATES CONSULATE,
Rouen, March 4, 1882.

EMIGRATION FROM WURTEMBERG TO THE UNITED STATES.

SPECIAL REPORT BY CONSUL CATLIN, OF STUTTGART.

With a view to ascertaining whether the predicted increase in the emigration from Germany to the United States during the coming spring and summer is justified, so far as Wurtemberg is concerned, by any present indications, I addressed, on the 2d instant, to each of the nine emigration agencies in this kingdom, a letter of inquiry, of which the following is a translation, viz:

UNITED STATES CONSULATE,
Stuttgart, February 2, 1882.

To Mr. ————,
Royal Emigration Agent at ——:

SIR: As you are no doubt aware, the great emigration which took place last year, not only from Wurtemberg, but from all Germany, to the United States of America, has been attracting very general attention and surprise on the other side of the Atlantic. The newspaper press publish extended articles on the subject, and in many cases prophesy a largely increased emigration during the coming spring and summer. As your position as emigration agent gives you an opportunity to know better than any others what the emigration will probably be, I should esteem it a very great favor if you will kindly inform me—

1st. Whether in your opinion the emigration from Wurtemberg to the United States promises to be greater this year than last?

2d. As a general rule what class of people are going?

3d. What arrangements, if any, have been made by the steamship lines you represent for the transportation of increased numbers of emigrants?

I shall be pleased at any time to reciprocate by extending you any desired information at my disposal, and I am,

Very truly yours,

GEORGE L. CATLIN,
United States Consul.

Of the nine agencies to which the foregoing letter of inquiry was addressed, eight have promptly responded, and translations of their several replies follow herewith, viz:

Mr. Albert Starker, agent at Stuttgart, writes:

In reply to your questions of yesterday I have the honor to state:

1st. Although the emigration of this year will be considerable it will scarcely assume greater dimensions than last.

2d. The greater part of the emigrants are peasants, vine-growers, and trades people of small means, and while the majority of them are people in very moderate circumstances there are occasionally some who have a little property. The age of the emigrants varies, and we see as many young single persons as we do entire families.

3d. The companies I represent are, North German Lloyd from Bremen, Hamburg Line from Hamburg, Cunard Line from Liverpool, Royal Crown Line from Amsterdam. They have all made such arrangements as to steamers that any increased number of emigrants can at any time be forwarded.

With respect, yours,

A. STARKER.

Mr. John Rominger, agent at Stuttgart, writes:

STUTTGART, *February* 4, 1882.

In answer to your inquiries of the 2d instant relative to emigration to America I have the honor to inform you that, as far as can be judged at present, emigration will be greater this year than last.

On the whole, the emigrants are mostly country people, such as vine-growers and peasant families; the single men who emigrate belong more to the trades-people class; there are also many servant girls who emigrate.

The directors of steamship navigation have made proper arrangements to meet even a greater pressure of emigrants. The North German Lloyd will send in the month of March alone thirteen steamers to New York and five to Baltimore, and if this is not sufficient they will very likely send more.

Always ready to furnish any information you may desire, I am, respectfully,

JOHN ROMINGER.

Mr. Carl Anselm, agent at Stuttgart, writes:

In answer to your inquiries, I would state that in my opinion this year's emigration from Wurtemberg will assume no greater dimensions than last year's; there will, on the contrary, be a great falling off, and particularly in the vine-growing regions, where, besides a very good wheat harvest, the people have this year made a great deal of money on their wine crop, and where consequently the incentive to emigrate is not so pressing as it was.

Last year's emigration was mostly composed of the farming classes, as in America there is a rich field for their strength and activity; only a comparatively small portion consisted of trades people.

In the north of Germany there are signs of a greater emigration this year than last; at all events there will be no diminution.

The companies that I represent are the Hamburg Line from Hamburg, the Netherland American Steamship Company from Rotterdam, the North German Lloyd from Bremen, and the Cunard Line from Antwerp and Liverpool, all of which have already increased the number of their vessels, and will add new ones, now being built.

With respect,

CARL ANSELM.

Mr. T. Treuer, agent at Heilbronn, writes:

HEILBRONN, *February* 7, 1882.

In reply to your inquiries I am sorry to say that I cannot answer the same as well as an older agent, and beg you, if my replies are not satisfactory, to ask some other house.

1st. Emigration from Wurtemberg has assumed somewhat greater dimensions; in comparison with other states it is yet, however, weak.

2d. The emigrants are peasants and trades people, who are always able to pay for their passage to America, and have some money left when they reach there. They understand that, if destitute, they are refused admittance at New York.

3d. From Antwerp, Bremen, and Hamburg there have been put on an increased number of strong, well-built vessels, and now six steamers sail weekly for New York from Bremen, and one steamer for Baltimore.

With respect,

T. TREUER.

Mr. Ernst Wilhelm Koch, agent at Heilbronn, writes:

HEILBRONN, *February* 6, 1882.

I have received your letter of the 4th, and I have the honor to answer your questions as follows.

1st. Emigration is very lively this year, but I doubt whether it will be as great as that of last year.

2d. Those who go at present are mostly people from the interior, such as peasants and vine-growers, who sell out and arrive in America with some property.

3d. The North German Lloyd has made arrangements so that from March 1st there will be three steamers sailing per week. The departures from Hamburg are also increased, and the Antwerp, Amsterdam, and Rotterdam lines have also made full preparations to obviate any embarrassment.

With respect,

E. W. KOCH.

Messrs. Langer & Weber, agents at Heilbronn, write:

HEILBRONN, *February* 4, 1882.

We received your honored letter, and beg to reply that according to our estimate the emigration of this year will be as considerable as that of last. We do not think, however, that it will be greater. The majority of the emigrants are trades people and small inn-keepers.

We are, with respect,

LANGER & WEBER.

Mr. G. L. Krieg, agent at Aalen, writes:

AALEN, *February* 6, 1882.

I am prepared to answer your inquiries so far as my experience will allow.

1st. It is thought that during the coming spring a considerable tide of emigration will set in towards the sea-ports, but mostly from Russia, Poland, North Germany, and Austria. As to Wurtemberg I expect to do no larger business than I did in the year 1881, when I forwarded 300 persons.

2d. The emigrants are mostly young people, day laborers, peasants, tradesmen, and servant girls; sometimes, also, families go.

3d. The North German Lloyd Line from Bremen has put in readiness for the present, thirteen steamers per month.

The real state of emigration will only develop with the beginning of spring, when with the people the intention has become a fact, and they give notice to the emigration agents to make arrangements for their conveyance. It is not to be overlooked that a great number of persons travel on tickets sent to them from America by their relations.

Always ready to give any desired information, with respect, yours,

G. L. KRIEG.

Mr. Emil Georgii, agent at Calw, writes:

CALW, *February* 3, 1882.

In answer to your questions I beg to state:

1st. I doubt whether emigration with us will be greater this year. On the contrary, I think it will be less.

2d. Those that went were mostly rural laborers and small trades people.

3d. Of the preparations made by the steamship lines I know nothing.

With respect,

EMIL GEORGII.

The general inference from the foregoing replies would undoubtedly be, to one not conversant with other facts, that this year's emigration from Wurtemberg will certainly be not in excess of last year's. It is true that a fair wine crop and wheat harvest last fall have temporarily relieved the previous needs of the rural population, and made them, if not more contented, at least less discontented with their lot. But all that does not change the general situation, viz, that the country is overcrowded, and that every one of the thousands of emigrants who have gone before, has become an apostle for emigration, preaching by post to brothers, sisters, and cousins left behind. Letters, money, and passage tickets are coming constantly, and one hears on all sides that

this one or that one–it may be whole groups at a time–are going to America. At one railway station near here (Feuerbach) the other day eleven persons took the train together *en route* for America, taking with them all their worldly effects. I know of another case of a young naturalized American who came back last winter from Terre Haute, Ind., to visit his relations in this kingdom, and who returns this spring, taking with him a party of about twenty Wurtembergers, all young men from his neighborhood, and two of whom take with them about $1,000 each in hard cash. Since this report was begun I have had a call from an artist of some note here, who, intending to remove with his family to Chicago, has applied to the consulate to ascertain the proper way to enter his household effects and property through the United States custom-house. The stream is all one way, and with all due deference to the opinions so politely and promptly furnished me by the emigration agents here, I am inclined to differ with them, and will here venture to predict that the emigration for 1882 will considerably exceed their present expectations. One of the agents, Mr. Rominger, of Stuttgart, agrees with me, it will be observed, in thinking that this year will show an increased emigration. It may be that the others overestimate the retarding effect upon emigration of the good harvest of last fall; it may be that they do not fully appreciate to what an extent the practice of sending out passage tickets from America to relatives here is carried on. But whatever the basis of their calculations, I am inclined to think that by next January they will find recorded for the year 1882 such a stream of emigration as has never before left Wurtemberg in any one year for the United States.

GEORGE L. CATLIN,
Consul.

UNITED STATES CONSULATE,
Stuttgart, February 9, 1882.

COST OF LIVING IN SOUTHERN FRANCE.

REPORT BY CONSUL TAYLOR, OF MARSEILLES.

There is, perhaps, no section of the continent of Europe that is generally regarded by the American and English people as so desirable for either temporary sojourn or permanent residence as Southern France. The French shores of the Mediterranean from this city to the line of Italy have long been renowned for their beauty of scenery and for an equable, salubrious, and healthy climate. Neither the extremes of heat or cold are experienced here; snow is practically unknown, frosts infrequent, protracted rains unusual, and the occurrence of unpleasant fogs extremely rare. The air is soft and balmy without being enervating, and the sunlight possesses a marked brightness. It is not, therefore, strange that many of our people who desire to make a tour, or seek a permanent residence abroad, look with favor upon this region. Thousands yearly pass through here, and many make their winter's residences near by, mainly at Nice, Mentone, and other favorite resorts along the coast.

I am in constant receipt of letters making inquiries as to the expense of living here, and I have thought that possibly a short article on that subject might be interesting.

I find that it is the general impression among Americans, in fact I

shared the same belief myself before coming here, that the cost of living here is quite moderate; considerably less than in the average communities of the United States. This is a great mistake. Nearly all the necessaries of life command higher prices here than in the States. The so-called delicacies, "luxuries of life," such as fruits, wines, &c., are somewhat cheaper than in America. As a sample of prices here I will mention that flour is worth $6 to $7 per 100 pounds; beef, 20 to 40 cents per pound; pork, 22 to 26; mutton, 25 to 30; ham, 40 to 60; butter, 40 to 50; eggs, 30 cents; poultry is very high, 25 to 40 cents per pound; fresh fish, excepting mackerel, high; potatoes, 70 cents to $1 per bushel. I give our weights and measures. Everything here is sold by weight, even to wood.

Wood is extremely high, $30 to $40 per cord, and not of the best quality. Soft coal is used considerably for heating purposes, although of very poor quality and giving out a disagreeable and unhealthy gas. It is worth $8 per ton. Charcoal is used almost exclusively for cooking purposes, and costs $1.20 per 100 pounds.

Persons at home, familiar with housekeeping expenses, will readily see that these prices are materially in excess of those they have been accustomed to pay. As a result it will be found that the expense of maintaining a plain table for a family, say, of five, with two servants, is about $3 per day.

Servants' wages are somewhat less here than in America. Cooks can be obtained at from $7 to $9 per month, and maids at from $6 to $7.

Rents are rather reasonable. A house containing, say, seven to eight rooms besides those for the servants, can be had, rather sparely furnished, at $500 to $600 per year, and unfurnished at $350 to $400. Flats can be had considerably less, 25 per cent., at least. Washing and ironing is never done in the house, and so, of course, is an extra expense. It can be obtained, however, quite cheaply, for a family of five at from $8 to $10 per month. It is necessary to have at least two servants, as "maids of all work" can rarely be found. A cook expects to do nothing but the cooking and kitchen work, and therefore a maid is necssary for waiting on table, doing chamber work, &c.

From these figures it will be seen that the expenses of a family of five persons, living plainly but comfortably, exclusive of carriage, coachman, and all extras, such as schools, amusements, gratuities to servants, &c., will foot up about as follows:

Rent	$500
Table expenses	1,100
Servants	180
Wood, coal, and lights	150
Total	1,930

Clothes are somewhat cheaper here than in the United States, especially gentlemen's wear. There is not a great difference in ladies' goods aside from silks and velvets. Boots and shoes and gloves are quite cheap.

Desirable boarding places are quite difficult to find in this city. There are but few good boarding-houses, and the hotels of the first class are rather averse to taking regular boarders. Hotels of a lower class are not very desirable boarding places.

At Nice, Mentone, Cannes, and other resorts along the coast, board can readily be obtained, prices varying very widely, but they are uniformly high as compared with like accommodations in the United States.

The prices for tuition in the schools in this section are quite low, and boarding-school prices are also very reasonable. Lessons in music, drawing, or in any of the languages can be had at low prices.

H. A. TAYLOR,
Consul.

UNITED STATES CONSULATE,
Marseilles, January 20, 1882.

VITAL STATISTICS OF GERMANY.

REPORT BY CONSUL-GENERAL VOGELER, OF FRANKFORT-ON-THE-MAIN.

The Statistical Bureau of the German Empire has just published a comparative statement of the marriages, births, and deaths in the German Empire during the years 1872 to 1880 (both inclusive), which is highly interesting, and of which I subjoin a summary, together with such other incidental statistical facts as I deem of interest to the Department.

Years.	Average population of the German Empire.	Marriages.	Births.*	Deaths.*	Excess of births over deaths.
1872	41, 185, 000	423, 900	1. 692, 227	1, 260, 922	431. 305
1873	41, 532, 000	416, 049	1, 715, 283	1, 241, 459	473, 824
1874	41, 983, 000	400, 282	1, 752, 976	1, 191, 932	561, 044
1875	42, 510, 000	386, 746	1, 798, 591	1, 246, 572	552, 019
1876	43, 057, 000	366, 912	1, 831, 218	1, 207, 144	624, 074
1877	43, 608, 000	347, 810	1, 818, 550	1, 223, 692	594, 858
1878	44, 127, 000	349, 016	1, 785, 080	1, 228, 607	556, 473
1879	44, 639, 000	335, 113	1, 806, 741	1, 214, 643	592, 098
1880	45, 093, 000	337, 334	1, 764, 096	1, 241, 126	522, 970

*Including infants still-born.

According to this table the number of marriages, which in spite of the increase of population, had, from 1872 to 1879, steadily declined, has slightly increased in 1880, but not in a degree exceeding the proportionate increase of population since 1879. The figures showing the relation between the entire population and the number of marriages during the year mentioned are as follows:

To 1,000 inhabitants the number of marriages amounted—

In the year 1872, to	10.3
In the year 1873, to	10.0
In the year 1874, to	9.5
In the year 1875, to	9.1
In the year 1876, to	8.5
In the year 1877, to	8.0
In the year 1878, to	7.7
In the year 1879, to	7.5
In the year 1880, to	7.5

As to the two factors upon which the natural increase or decrease of population depends, viz, births and deaths, the foregoing table shows that the relative increase was less in the year 1880 than in any of the preceding years, but still exceeds the rate of 1 per cent. of the entire population.

Inasmuch, however, as there has prevailed in Germany, throughout

the period mentioned, a much stronger emigration than immigration of persons, the above table does not, in the last column, give the *actual*, but only the *natural* increase of the German people.

Upon the basis of the census of December 1, 1880, the comparison between the *actual* and the *natural* increase of the people can now be made for two census periods, the one comprising four, the other five years, viz:

Period from December 1—	Total population of the German Empire at the—		Increase.	Excess of births over deaths.	Actual increase less than natural increase by—	Of these the number known to have emigrated is—
	Beginning of the period.	End of the period.				
1871 to 1875 (four years).....	41, 058, 792	42, 727, 372	1, 668, 580	1, 988, 318	319, 738	304, 842
1875 to 1880 (five years).....	42, 727, 372	45, 234, 061	2, 506, 689	2, 887, 882	381, 193	212, 745
1871 to 1880 (nine years).....	41, 058, 792	45, 234, 061	4, 175, 269	4, 876, 200	700, 931	517, 587

This table shows an ascertained loss from 1871 to 1880 of 517,587 by emigration.

It will be borne in mind that the latest tidal wave of emigration did not fairly start from Germany until the beginning of the year 1881, and that it promises to increase in immensity in the current year. Nevertheless, the wonderfully recuperative power of the German people is fully apparent. The foregoing figures show that with an annual emigration of a quarter of a million of people, the population of the empire will still increase by more than one-half per cent., or in round figures a quarter of a million per year. As the emigrants, however, are almost exclusively adults, it is clear that although the population may increase in the aggregate, yet the producing power of the empire must constantly decrease, because the natural proportion between producers (adults) and consumers (minors) is by this exodus of adults materially changed.

The loss devolving upon Germany and the advantage accruing to the United States by this emigration from Germany have been so frequently dwelt upon and so vividly portrayed by writers more or less informed that I refrain from commenting upon the subject in this report.

As to the figures showing the number of births and deaths (in both of which still-born infants are included), they prove for the years mentioned the following relation, viz:

There were to 1,000 inhabitants:

Years.	Births.	Deaths.
1872	41.1	30.6
1873	41.1	29.9
1874	41.8	28.4
1875	42.3	29.3
1876	42.5	28.0
1877	41.7	28.1
1878	40.5	27.9
1879	40.5	27.2
1880	39.1	27.5

The proportion of males born during the year 1880 to the females is as 106.2 to 100. The same proportion, with very slight variations, governs during the entire period of nine years herein mentioned.

The proportion of illegitimate births has also remained nearly stationary during the period referred to.

There were to 100 births during said nine years, illegitimate:

In the year 1872	8.90
In the year 1873	9.23
In the year 1874	8.67
In the year 1875	8.65
In the year 1876	8.65
In the year 1877	8.65
In the year 1878	6.66
In the year 1879	8.85
In the year 1880	9.00

FERDINAND VOGELER,
Consul-General.

UNITED STATES CONSULATE-GENERAL,
Frankfort-on-the-Main, February 16, 1882.

TRADE AND COMMERCE OF TAHITI.

REPORT BY CONSUL ATWATER.

The return of trade herewith shows a considerable gain over that of last year, the more so as not an eighth of the amount ($275,000) of exports is consumed in the States, the remainder being in transit for Europe.

Of the imports from the States one-quarter of the amount embraces foreign from bond or in transit, so that there is a cash balance of $265,000 in favor of the United States.

Statistics of trade have not yet been prepared at the customs here, but I have been promised a copy as soon as they may be ready.

Tahiti has been so long in communication with all parts of the world, and the merchants knowing perfectly well its wants and the best places to obtain them, that I have refrained from mentioning in my reports any class of goods as being desirable in this market. Although it is well known that American manufacturers produce everything needed here, and at as cheap if not cheaper than European rates, yet the badly packed and clumsy cases augment the freight to such an extent as to more than counteract the difference in the price of goods, therefore the greater part of the dry goods are bought in Europe.

The Pacific coast furnishes the islands with provisions, hardware, kerosene, lumber, &c.; Australia and New Zealand with coal, soap, and canned meats; France with wines, brandies, and fancy articles, and Germany with part of the dry goods and ironmongery. The opium monopoly has been farmed out at $20,000 for eighteen months from July next. There are four hundred and fifty Chinamen, three hundred and fifty of whom use the drug to the extent of about 1,000 pounds per year, paying $30 the pound for it.

During the past year Tahitian cotton has depreciated 20 per cent. in value in the European markets, and copra 40 per cent., mother-of-pearl shell alone holding its own. These three productions aggregate more than all the remaining exports of the islands.

Freight to Europe, $40 per ton; to and from San Francisco, $8 per ton, and Sydney $15 per ton.

Exchange on Paris and London, thirty days, 7 per cent. premium, on San Francisco, ten days, 10 per cent. premium.

DORENCE ATWATER,
Consul.

UNITED STATES CONSULATE,
Tahiti, December 31, 1881.

MEANS FOR THE ENLARGEMENT OF AMERICAN TRADE.

REPORT BY CONSUL WHARTON, OF SONNEBERG.

I would suggest as a means of extending trade the more extensive publication and dissemination of the statements of declared exports issued quarterly and annually from the different consulates. The great value of the "Reports from Consuls of the United States" published by the Department of State is everywhere recognized. But these are so bulky and so expensive as to be debarred from the general circulation which I think desirable. In addition, while containing elaborate essays and valuable suggestions, they do not contain the simple facts in detail as they appear in these statements. To show the importance which merchants attach to these exhibits, regular requests are received at this consulate from such houses as that of A. T. Stewart & Co., to be furnished with copies of these statements as soon as they are prepared. In order that the plan suggested may be carried out two things are necessary: first, the Department of State should authorize the consuls to incur the expense of publishing these statements in large quantities, and of forwarding them through the mails; and secondly, the different consulates should be furnished with an address book of the leading mercantile and manufacturing houses which would probably be benefited by them. These statements show at a glance just what goods, in what quantities, and from what countries, are shipped to the United States. They indicate the demand at home by showing what it takes to supply it; and may thus stimulate our manufacturers to the establishment of new industries. By comparing one with another as they come, every three months, it can be seen whether these exports are increasing or diminishing. In addition they give information to many not acquainted with this export trade as to where such articles may be obtained as are necessary to meet the wants of the ever-increasing millions of our land.

On the other hand, it is desirable that the consuls of the United States abroad should be furnished, in large quantities for distribution, with the statements of foreign consuls in the United States of the declared exports from our land to their respective countries.

Indeed, so far as the development of our trade is concerned, this suggestion is more important than the other. The consuls could easily ascertain the houses in their districts that would be profited by these periodical exhibits, and the extent and character of the American export trade be made to thousands now without any information on the subject. A great advantage arises from the fact that these statements are always made in the language of the country represented by these consuls. Valuable as are the published "Consular Reports," there are two obstacles in the way of their usefulness: First, they do not come in sufficient quantities; at this consulate four copies only are received, while the ten copies that formerly came were by no means equal to the demand. Secondly, being in the English language, even if distributed largely, they can be read by only the few; by many who would be interested in them, not at all. As a meager substitute, I have regularly published and distributed from 100 to 200 copies of the declared exports from this district. It would be a great advantage to our trade to accompany these with the statements of our own exports to all lands, which could be procured from the foreign consuls accredited to our

government. If necessary, these statements could be combined in a single circular, with brief printed notes made under the supervision of the State Department, which would still further facilitate their usefulness. In this case it would be desirable to have them translated into the language of the particular country for which they should be designed, and placed at once in the hands of our consuls for judicious distribution.

M. B. WHARTON,
Consul.

UNITED STATES CONSULATE,
Sonneberg, February 13, 1882.

THE WINE TRADE OF BURGUNDY.

REPORT BY VICE-CONSUL PEIXOTTO, OF LYONS.

A like situation to the present one is said never previously to have existed in the wine trade of Burgundy and neighboring districts. The campaign began with excessive prices which drove purchasers from the market of this vicinity. Thus the French wine merchants have been able to liquidate but a part of this year's stock, and they have found their market invaded by foreign produce, which came in a very tide upon them, and has remained mostly intact for want of voluntary purchasers. In the midst of all this, the *négociant*—he who deals directly with the customers—has remained calm and self-possessed, certain of one of the two parties, foreign or national wine merchant, giving out at last, and being forced to cede to circumstances. During this time, terms have come about, expired, and payment become due; one or two renewals were allowed, but that was all, and the moment came when a concession at any price was necessary.

In Beaujolais the business is very dull indeed; one scarcely sees the mere shadow of a purchaser. The prices have decreased since December from fifteen to twenty per cent., and a great many proprietors of vineyards have decided that selling out is their only chance of meeting the difficulties, seeing that an increase of price is impossible.

The paring or vine trimming is going on at present under favorable conditions. The wood is healthy and permits one to hope for amelioration in the future. The weather is very propitious for all work now under process. The sulphur treatment has been re-established, and if good results are now attained it is to be expected that next year all the proprietors will sulphurate their vineyards.

The prices paid at present are from 135 to 140 francs the cuvée, first quality, and the second sort sells at 80 to 85 francs the cuvée, on the spot—place of vintage. The quality is below that which was at first estimated, because of the comet's advent, and there is serious reason to believe that another year like this would open the French market to foreign speculators.

GEORGE D. M. PEIXOTTO,
Vice-Consul.

UNITED STATES CONSULATE,
Lyons, France, March 7, 1882.

COTTON-SPINNING IN GERMANY.

REPORT BY CONSUL SPACKMAN, OF MUNICH.

Such a short time has elapsed since the introduction of the new German duties of entry, that it is difficult to judge of the effect of them on the different industries of this country. The prosperity or non-prosperity of many industrial branches does not depend exclusively on higher or lower duties. There are, apart from these, many other reasons, particularly the fluctuation in the prices of the raw material, which often must be obtained entirely from foreign countries; and the more or less successful use made of these is at least of the same degree of importance.

With special reference to cotton-spinning it may be said, without fear of contradiction, that it has greatly improved in the last year. In this district more than 500,000 spindles are running, the product of which finds a prompt sale. The wages show no considerable change, and the relations between the mill-owners and the workmen are satisfactory. The offer of work surpassed the demand, and this circumstance may have contributed in great part to this state of things. About the "accident-insurance law" brought forward by the German Government the proceedings are still pending; yet, in this country, the general opinion, and, as far as I know, for good reason, is, that the state, as such, never will be able to grant to disabled or invalid workmen the same advantages which are already offered to them at the present time by the pension and sick funds introduced in Bavaria. Public opinion on the proposed invalid and provident fund for old workmen is still more decidedly against it, from the same motives.

The improvement in the state of cotton-weaving is of less significance, and may be attributed solely to the fact that, in consequence of the last crop being a good one, our rural population is in a better position to expend money on articles of dress. This is evident from the circumstance that factories for printed and plain cotton goods have had a larger share of orders to execute.

The manufacture of thread and sewing-cotton shows an increase of several establishments during the last few years, from which it may be concluded that it flourishes, notwithstanding the great competition it has to overcome, partly from Alsace and partly from England, the fabrics of the latter being in high favor with the public. Besides the home consumption, the exportation of thread has increased, Italy and Spain being good customers for the article.

Although there is a very large establishment for carded wool spinning here, perhaps the largest in Germany, it is not possible to obtain reliable information about the business it does. From the fact that no complaints are heard, it may be inferred that the trade is going on satisfactorily. A great part of the raw material for this branch of manufacture is imported from foreign countries, particularly from England. It is therefore not possible to form an estimate of the extent of business in this line now of the hemp and linen industry, which also receives a considerable part of the raw material from Italy. The manufacture of pack thread, twine, &c., has greatly developed and is exported as far as California, the quality being universally acknowledged as very superior.

There exists here a large establishment devoted to twisting and dyeing silks which does a good business in consequence of the peculiar colors

used, the preparing of which is a special secret of this establishment, so that for several kinds of silk there is no competition.

The manufacture of springs and saws for watch-making is well represented here, exports very considerable quantities, particularly to the United States of America and Russia, because a great number of good, skilled workmen in this difficult manufactnre are employed by the makers. Lately a large trade with Australia has been developed.

The manufacture of machinery has been flourishing here in many large and small factories for a number of years. Except the building of ships and locomotives all kinds of machines are made here. Some of these establishments, which cultivate specialties, for instance, the making of agricultural machines and stationary engines, are enjoying a wide reputation and distance the English competition. They also excel in the construction of turbines and of heating apparatus, by water and by steam. The manufacture of fine brass wire for paper-makers has also attained a very high degree of excellence, and last, though in fact first, we must mention the construction of steam presses for printers, which are furnished in a style unsurpassed by any other German factory, and so renowned that the demand exceeds the supply.

The mills of this district manufacture scarcely any paper, except for printing and packing purposes, but this to a large extent, the produce being used mostly in this country. For letter and fine note papers the factories in Rhenish Prussia forbid all competition.

For the production of matches there is here a very considerable factory for common phosphorus as well as for Swedish matches. Bavaria furnishes for this fabrication the most perfect wood material in any quantity. Matches are largely exported from here to Australia, China, and Japan, but the high railway freights are continually complained of.

The manufacture of tobacco for smoking in our district is represented only by a few inconsiderable establishments. On the other hand, the preparation of snuff takes a high rank, as many large establishments manufacture it. The export is very small, but the home consumption includes all parts of Germany.

SAMUEL SPACKMAN,
Consul.

UNITED STATES CONSULATE,
Munich, February 23, 1882.

HAYTIAN TARIFF.

TRANSLATED AND FORWARDED TO THE DEPARTMENT OF STATE BY CONSUL-GENERAL LANGSTON.

DUTIES ON IMPORTS.

		Duties.
Absinthe:		
12 ordinary bottles		$0 75
12 large bottles, or littres		1 00
Acid:		
Tartaric	per pound	12
Sulpuric	per ordinary bottle	6
Aiglets:		
Of fine gold	each	1 00
Of fine silver	do	75
Of imitation gold and silver	do	50
Of silk	do	10
Of worsted, thread or cotton	per dozen	50
Awls:		
Mounted	per dozen	12
Not mounted	per hundred	25

		Duties.
Almanacs:		
Fine gilt edged	per dozen..	$0 37
For young children, with engravings	do....	50
For offices	do....	25
For pocket	do....	12
Alphabets:		
Ordinary	per hundred..	50
With engravings	do....	1 00
Almonds	per hundred-weight..	1 00
Anchovies:		
In cases holding 12 jars		30
In pots or small barrels	per pot or barrel..	15
Anchors of ships	per hundred-weight..	50
Asses, she asses free of duty.		
Anisado (distilled aniseed)	per gallon..	25
Aniseed:		
Green and star	per pound..	5
Cordial, in baskets of two compartments	per basket..	40
Cordial in cases	per 12 bottles..	2 50
Arrow-root, powdered, fecula of potatoes	per pound..	3
Articles, prohibited (see Article 30 of the law).		
Atlas:		
Of hydrography or of geography, bound in skin	each..	25
Of hydrography or of geography, boarded	do....	12
Of hydrography or of geography, linen stitched	do....	2
Of geography	do....	25
Azure, powdered or in lump	per pound..	12
Anvils	per hundred-weight..	50
Axletrees, of iron for carts, free of duty.		
Arm-chairs:		
Single, fine, with straw or wooden seats, gilt	each..	1 00
Single, fine, of horsehair or morocco, gilt or not	do....	1 00
Single, of ordinary wood, with large backs, gilt or not	do....	75
Single, plain, common	do....	50
Axes:		
For sappers, with or without cases	each..	25
For carpenters, of every sort	per dozen..	1 00
Almond cake (nougat)	per pound..	6
Apples	per barrel..	40
Argand lamps:		
With several branches	each..	2 00
Ordinary	do....	50
For tables, with glass globes	do....	1 25
For tables, with rim and shade of silk or gauze stuffs	do....	50
Augers:		
Assorted	per dozen..	25
For wimbles	per dozen augers..	25
For wimbles, small	per dozen small augers..	12
Assay balances	each..	75
Bows, for violin	per dozen..	1 00
Baths:		
Of brass, large	each..	2 00
Of brass, small	do....	1 50
Of brass, set in chairs, or half baths	do....	1 00
Of tin, large or small	do....	1 00
Of tin, set in chairs or half baths	do....	75
Of wood, or large pails	do....	50
Brooms:		
Of horse-hair and of straw	per dozen..	1 00
(Hand-brooms)	do....	50
Hand-brooms of feathers	do....	1 00
Balustrades of iron	per hundred pounds..	1 50
Bands:		
Of muslin, cambric muslin, and book muslin, embroidered	per ell..	6
Of muslin, cambric muslin, and book muslin of superior quality	do....	12
Of cambric, embroidered	do....	8
Of cambric, of superior quality	do....	16
Of paper, for hats	per dozen..	6
For letters	do....	3
Bass-viols, instruments of music	each..	1 00

		Duties.
Basins:		
Of brass	per pound..	$0 06
Of pewter	each..	12
Of earthenware or porcelain	do....	12
Bassoons, instruments of music	do....	50
Buildings in glass, ivory, or other rare material for ornaments	do....	3 00
Beaufort:		
(Linen of), of 30 inches and under	per ell..	2
(Linen of), above 30 inches (see article 24, third paragraph).		
Beet-root:		
In barrels	per barrel..	1 00
In baskets	per basket..	25
Butter	per hundred-weight..	1 00
Butter-boats, of glass	each..	6
Bidets:		
Mounted with morocco	each..	1 00
Ordinary, with backs	do....	50
Of tin, with syringe	do....	50
Of earthenware, single	do....	20
Beer:		
In barrels	per barrel of 60 gallons..	2 00
In half barrels	per half barrel of 30 gallons...	1 00
In bottles	per dozen bottles ..	25
Billiards:		
Of mahogany or rare wood	each..	25 00
Of common wood	dó....	15 00
Billard balls:		
Per set of four balls		1 50
(Pool), the 24 balls		3 00
Biscuits:		
White	per hundred-weight..	75
Ordinary	do....	37
Small	do....	75
Bitters:		
In bottles	per dozen..	1 50
In half bottles	do....	75
Blue, Prussian*	per pound..	10
Bowls, of glass, of every dimension, without their capsules	each..	3
Beef:		
Salt	per barrel..	1 50
Smoked	per hundred-weight..	1 50
Salted *à la mode*	per pot or small cask..	50
Boxes:		
Of mathematical instruments, complete	each..	50
Per set	the set..	2 00
For cards (for game of "la Bête")		75
For tea, of tin	each..	25
Of leather, for hats	do....	50
Of perfumery, containing 6 pieces	each box..	
Of pasteboard, colored, with glass or mirror	per dozen..	6
Of pasteboard or wood, for pills, lozenges, and wafers	do....	3
For keeping silverware	each....	1 50
For barbers	per dozen..	20
For dressmakers	each..	50
Musical	do....	1 00
Bombazine or mourning, of silk and wool, alpaca, or other material of like kind, of 30 inches and under	per ell..	
Bombazine:		
Of pure wool or goat-hair, of 30 inches and under	per ell..	6
Of dimensions larger than those hereabove stated (see article 24, 3d paragraph).		
Bombs:		
(Projectiles.) Free of duty.		
Of iron or of pinchbeck	each..	25
Buckets	per dozen..	75
Boots:		
With tops or plain, fine and common	per pair..	1 50
Common, large and medium size	do....	50

* Thus modified by law of July 20, 1859.

		Duties.
Boots:		
For soldiers	per pair..	$0 25
Half	do....	75
Half, for soldiers	do....	25
For women	per dozen..	2 50
Half, for women	do....	2 00
Buckles:		
Of metal, other than gold or silver	per gross..	50
For ribbons of round hats	do....	60
For saddlery, assorted, not plated	do....	25
For saddlery, assorted, plated	do....	50
Bottles:		
Empty	per hundred..	50
Covered with osier or skin, assorted	per dozen..	30
Buttons:		
Of metal, impressed, for officers	per gross..	50
Of metal, impressed or ball shape, for soldiers	do....	18
Of metal, plain, flat, fine	do....	40
For trousers	do....	10
Of mother of pearl, agate, serge, or silk, large	do....	20
Of mother of pearl, agate, serge, or silk, small	do....	15
Of linen or glass	do....	10
Of bone or wood	per package of 12 rows..	10
For shirts or clothes, mounted on brass or gilded silver	per 12 pairs..	50
Bracelets:		
Of silk ribbon	per pair..	12
Of gold, silver, and gilt silver. (See Fine jewelry.)		
Braces:		
Fine, embroidered in silk, with gilt buckles or silver-plated	per dozen pairs	1 00
Of cotton, linen, duck and India rubber, with iron buckles; pewter or polished brass	per dozen pairs..	30
Fine, with metal buckles, and of divers material	per dozen..	75
Of cotton, ordinary, with iron buckles	do....	12
For guns, in leather	do....	6
Bridles:		
Mounted with plated bits	each..	1 50
Fine, without plated bits	per dozen bridles..	6 00
Ordinary, without plated bits	do....	6 00
Bricks	per thousand..	50
Brushes:		
Fine, for clothes	per dozen..	60
Ordinary, for shoes	do....	25
Tooth	do....	20
Hair	do....	50
Busts:		
Of plaster, above 24 inches in height	each..	50
Of plaster, of 12 to 24 inches in height	do....	1 25
Of plaster, below 12 inches in height	per dozen..	1 00
Bandboxes	do....	50
Boilers:		
Of copper, for manufactories	per hundred weight..	3 00
Of iron or pinchbeck, of all shapes and sizes *	do....	50
For sugar, of iron or pinchbeck. Free of duty.		
Bedstead keys, of iron	per dozen..	50
Blacking:		
For leather, shoes, &c., in sticks or pots	per dozen..	50
For leather, shoes, &c., liquid, in flasks	per 12 flasks..	10
For leather, shoes, in balls	per dozen..	10
For leather, shoes, in small flasks	do....	20
Bells:		
Of brass	per hundred-weight..	5 00
Of casting	do....	4 00
Small	per dozen..	50
Bed-posts:		
Of fine wood, carved or grooved	per 4 posts..	4 00
Of mahogany, or yellow wood, turned, plain	do....	3 00
Bills of lading	per thousand..	2 00

*Thus modified by the law of July 20, 1859.

		Duties.
Blankets:		
Of cotton, mixed with silk, with or without fringe	each..	$1 00
Of cotton flock, very common	do....	25
Of cotton, quilted and worked, fine	do....	75
Of cotton, quilted and worked, ordinary	do....	50
Of wool	do....	25
Of thread, chintz, fine	do....	30
Of thread, chintz, common and narrow	per dozen..	40
Breeches	per dozen..	4 00
Brandy:		
In pipes or casks of at least 60 gallons	per gallon..	50
In cases	per case of 12 bottles..	1 00
In cases	per case of 12 liters..	1 50
In jugs or jars of ½ pints	per dozen..	1 50
Of Andaye, per case of 12 bottles	per case..	1 00
Prepared for the making up of hats	per gallon..	4
Bark, powdered for tanning leather	per barrel..	25
Boot-stretchers	per pair..	50
Block tin	per hundred-weight..	3 00
Bolting-cloth:		
Wide	per ell..	4
Narrow	do....	2
Beans in barrels	per barrel..	40
Bed-bottoms, of wood, 20 per cent. ad valorem.		
Bells:		
Of gilded copper or silver-plated	per gross..	40
Of pure copper	do....	20
Bacon	per pound..	2
Bedsteads:		
With pillars, of mahogany, plain	each..	6 00
With pillars, carved or grooved, with cornices	do....	8 00
Of oak, plain	do....	4 00
Of pine wood	do....	3 00
Of iron	do....	3 00
Books:		
Bound, edges gilded or not, with or without engravings:		
Each volume in folio		20
Each volume in quarto		15
Each volume in octavo		8
Each volume in 12		5
Each volume in 16		3
Each volume in 18		1
In boards or stitched, half price, according to size.		
Classical, that is to say, grammars and dictionaries of dead and living languages, the Greek and Latin authors, books of arithmetic, geometry, algebra, and elementary geography, when in boards or stitched. Free of duty.		
Small or pocket memorandum books, plain	per dozen..	30
Small or pocket memorandum books, fine, with tablets	do....	40
Small gilded or pocket memorandum books, with gilt leaves	do....	40
Black lead	per pound..	8
Bits:		
For bridles, plated	per dozen..	3 00
For bridles, ordinary	do....	2 50
For bridles, common	do....	2 00
Book-muslin, in pieces, of 30 inches and under	per ell..	5
Baskets:		
Of osier, large	per dozen..	2 00
Of osier, small	do....	75
Of porcelain, for fruits	per pair..	50
Barbers' brushes	per dozen..	40
Buckwheat	per barrel..	50
Bouquet-stands	each..	5
Bottle-stands:		
Silver-plated	each..	8
Not silver-plated	per dozen..	40
Billiard-cues	do....	8 00
Billiard-cloths	each..	4 00

		Duties.
Buckets:		
Of wood or leather	each..	$0 12
Of white or colored glass, for tables	per dozen..	30
Bird-organs	each..	1 50
Bran	per barrel..	30
Bellows:		
For blacksmiths	each..	1 00
For butchers	do....	1 00
For kitchens	do....	1 00
Bass drums:		
Of copper	each..	40
Of wood	do..	20
Boot-legs	per pair..	40
Bootjacks	per dozen..	40
Bolsters:		
Of feathers. Prohibited.		
Of straw	per dozen..	50
Backgammon-boards, 20 per cent. ad valorem.		
Bolts	per dozen..	30
Bone-black	per hundred pounds..	75
Boards:		
Pitch pine	per M..	2 50
Pine	do....	1 75
Oak	do....	3 50
Bear-skins	each..	50
Buffalo-skins	per dozen..	12 00
Blunderbusses	each..	1 00
Bags, of osnaburg, and other bagging	per hundred..	2 50
Bullion gimp and flat lace of fine gold	each..	30
Bullion gimp and flat lace of fine silver	do....	20
Bullion gimp and flat lace, imitation	do....	25
Brin:		
(Linen manufactured in Champagne) of 7-8 and 3-4	per ell..	2
Of large width	do....	4
Burat (common woolen stuff) of 30 inches and under	do....	5
Chitterlings (force meat balls)	per hundred-weight..	2 00
Cupboards:		
Of mahogany or fancy wood	each..	10 00
Of oak or common wood	do....	3 00
Churns	do....	25
Casks, empty, of sixty gallons	do....	4
Cambric:		
White linen, by the piece or roll of 30 inches and under	per ell..	10
Same, above 30 inches. (See Article 24, third paragraph.)		
Cotton, of 30 inches and under	per ell..	6
Unbleachen linen, of 30 inches and under	do....	8
Cross-belts:		
Of buff	per dozen..	2 00
Of patent leather	do....	2 50
Betagged or embroidered	each..	4 00
Cradles:		
Of osier, for children	do....	25
Of mahogany	do....	1 00
Cans, of tin (soldiers)	per dozen..	50
Candles	per pound..	5
Candies:		
In paste, of every sort	do....	4
Of sugar, crystallized or not	do....	5
Caps:		
Of lace, for women	per dozen..	2 00
Of embroidered muslin, for women	do....	1 00
Of wool or cotton	do....	25
Of ordinary stuff, for soldiers and others	do....	1 00
Of leather	do....	1 00
For children, of lace, tulle, or other rich material	do....	2 00
For children, of muslin, or Victoria lawn, embroidered	do....	1 00
Corks:		
Assorted	per thousand..	25
Fossil, lined	per hundred..	40

		Duties.
Candlesticks:		
Plated, of every dimension, without their shade	per pair..	$0 50
Plain, and those of brass, without their shade	do....	12
Of glass, without their shade	each..	25
Cannon-balls of any caliber. Free of duty.		
Compasses of every sort, other than those of ships, 20 per cent. ad valorem.		
Coal-tar, wet and dry	per barrel..	50
Cruets, of crystal	per pair..	25
Cable chains, for ships	per hundred-weight..	1 00
Coffee-pots:		
Of silver	per marc (8 ounces French weight)	1 50
Of silver, plated	each..	30
Of tin, composed of one or more pieces	do....	25
Of tin, ordinary	per dozen..	80
Of China, mounted on iron stoves, surnamed "à la Dubelloy"	each..	75
Of China, simple	do....	6
Cages, assorted	per dozen..	2 00
Copy-books:		
Methods or music books, bound in skin or morocco, gilded or not	each..	25
Same as above, boarded or stitched	do....	15
Cases, for gin, with the 12 empty flasks	do....	20
Chalices, silver-plated	do....	50
Cinnamon	per pound..	04
Cannons, of brass, iron, or cast iron, free of duty.		
Caparisons:		
Of fine material, richly embroidered in gold	each..	4 00
Of fine material, richly embroidered in silver	do....	2 50
Of silk, plain or embroidered, colored	do....	1 25
Of cotton, plain or embroidered, colored	do....	30
Cloaks:		
Of beaver, for ladies, of every quality	per dozen..	8 00
Of beaver, for children, of every quality	do....	3 00
Capers	per 12 pots..	20
Capsules, for jars	per dozen..	25
Carrots in barrels	per barrel..	50
Cart-board, cut for hats	per dozen..	50
Cartoons, for offices	do....	1 00
Charts:		
Marine or geographical, detached, mounted on linen, varnished, over 48 inches in width		25
Same as above, under 48 inches in width		12
Cassocks, for husbandmen	per dozen..	50
Caps:		
Of cloth, with lace or plaits, richly embroidered or not, for men	per dozen..	3 00
Plain ordinary, or of leather, for men	do....	1 50
Rich, for children	do....	2 00
Ordinary and common, for children	do....	50
Chains:		
For surveyors	each..	50
Of iron, other than for cables	per pound..	2
Safety, of gilt brass, for watches	per dozen..	50
Safety, of steel, for watches	do....	25
Small, of brass	do....	10
Chairs:		
With or without arm-chairs, of painted or varnished wood, gilt or not, woolen, cane, or fine straw bottoms	per dozen..	4 00
And arm-chairs of various wood, provided and covered with horse-hair, silk, or morocco	per dozen..	8 00
And rockers, pierced	do....	5 00
Ordinary, with straw or wooden bottoms	do....	1 75
Small, for children, with steps, fine	do....	2 50
Small, for children, with steps, ordinary	do....	1 20
And arm-chairs for children, fine	per dozen..	2 50
And arm-chairs for children, pierced, fine	do....	1 25
And arm-chairs for children, pierced, ordinary	do....	75
Candlesticks:		
Of silver of every form and size	per marc..	1 50
With several branches of gilt brass, or silver-plated	per pair..	1 00
Simple of gilt, brass, or silver-plated, 10 inches and above in size	do....	50
Same as above, below 10 inches in size	do....	25

		Duties.
Candlesticks:		
Of pure copper, of every form and size	per pair..	$0 12
Of crystal	do....	50
Of glass	do....	30
Of tin	per dozen..	1 00
Plain, of gilded copper, or silver-plated, from 6 to 10 inches	per pair..	25
Same as above, under 10 inches	do....	12
Chaplets:		
Of wood	per gross..	20
Of cocoanut wood	per dozen..	6
Of glass	do....	10
Coal:		
In hogsheads	per hogshead..	1 00
In barrels	per barrel..	20
Carts:		
Not mounted, 20 per cent. ad valorem.		
Chocolate	per pound..	20
Chemises:		
For women, of cambric or fine linen, embroidered	each..	1 00
For women, of cambric, or fine linen, plain	do....	75
For women, of cambric, or muslin, embroidered or plain	do....	50
Cherry cordial	per dozen bottles..	1 00
Do. in liters	per dozen..	1 50
Ciboriums, of brass, coated with silver, or plated	each..	1 00
Cider:		
In barrels	per barrel of 60 gallons..	2 00
In hogsheads	per hogshead..	1 00
In bottles	per dozen..	25
Cement:		
In hogsheads	per hogshead..	1 00
In barrels	per barrel..	25
Clarinets:		
With silver keys	each..	2 75
With brass keys	do....	1 00
Cockades:		
Assorted, of silk	do....	10
Of varnished leather	per hundred..	10
Caskets	each..	4 00
Coat-collars:		
With ornaments and coat of arms, embroidered for generals or high officials	each trimming..	2 00
Same as above, embroidered in cloth or velvet, for health officers or administrators	each trimming..	1 00
Collars:		
For shirts	per dozen..	50
Of every quality	do....	1 00
Compasses:		
For ships	each..	50
Of iron or brass, for carpenters	per dozen..	40
For shoemakers	do....	75
Of crystal	per pair..	75
Of glass	do....	37
Consoles, of iron, for bedsteads, 20 per cent. ad valorem.		
Cordage, assorted	per hundred weight..	1 50
Cotton-twist:		
For dresses	per pound..	10
Of thread for shakos	per dozen..	75
Or twist of wool for shakos	per 12 ells..	3
Corsets, for women	per dozen..	2 00
Cosmoramas, 20 per cent. ad valorem.		
* Cotton:		
Gray and white, named Madapolam—		
Under 24 inches	per ell..	1
Of 24 to 30 inches	do....	1¼
Over 30 to 36 inches	do....	2
Over 36 to 42 inches	do....	2¼
Of 42 to 50 inches	do....	3

* Thus modified by the law of July 20, 1859.

		Duties.
Cotton:		
Gray and white—		
Of 50 to 60 inches	per ell..	$0 03½
Gray and white, fine linen cotton of 30 inches and under	do....	4
Common, of 30 inches and under	do....	3
Cushions, of hide	each..	25
Covers:		
For holsters, of tiger or bear skin, without lace	each..	50
Of brass wire or composition, for dishes	per dozen..	50
Crape:		
Wide	per ell..	6
Narrow, for mourning	do....	4
Crucibles	per set..	25
Crystal, other than that denominated, 20 per cent. ad valorem.		
Crosses or crucifixes of brass:		
Small	per hundred..	25
Large	do....	50
Cruppers	per dozen..	2 00
Copper	per hundred weight..	1 00
Cylinders:		
Of glass, for clocks with flowers	each..	50
Of iron, or rollers for mills	per hundred weight..	50
Small, for saints	per dozen..	50
Cloth:		
Fine, ordinary, of 4–4 and over	per ell..	60
Common, over 4–4 wide	do....	30
Common, 4–4 and under	do....	18
Of serge, or wool and silk, and colored material for vests	do....	16
Canopies, or masonic thrones, 20 per cent. ad valorem.		
Currycombs	per dozen..	30
Cases:		
For dressmakers, in mother-of-pearl or ivory	per dozen..	30
Of mathematical instruments	each..	50
Of wood or bone	per dozen..	8
Of paper	per hundred..	25
Of pasteboard, with empty flasks for holding marking-inks	doz. cases..	25
Crockery:		
Per crate of from 1 to 3 feet in length by 1 to 3 wide	each..	2 00
Per crate of from 3 to 5 feet in length by 1 to 3 wide	each..	4 00
Per crate above the dimensions here above, see article 24, third paragraph.		
In hogsheads or in tierces	each..	5 00
Cart-whips	per dozen..	4 00
Cheese of every quality	per pound..	2
Casks	each..	25
Cartridge-boxes:		
For officers, with cross-belts of gold or silver lace	do....	1 50
With cross-belts of embroidered morocco	do....	75
With cross belts of embroidered morocco or plain	do....	40
With cross-belts of plain or varnished leather	do....	20
For troops, with cross-belts of buffalo	per dozen..	2 00
Cloves	per pound..	9
Curb-chains, for bridles	per dozen..	18
Canary-bird seed	per 100 pounds..	1 00
Cherry brandy and ratafia	per 12 bottles..	1 00
Do	per 12 half bottles..	50
Do	in liters, per dozen..	1 50
Clocks:		
Of wood, for ante-rooms or kitchens, with chains and weights	each..	60
For houses, churches, &c., 20 per cent. ad valorem.		
Castor oil:		
Clarified	per bottle..	16
Clarified	per gallon..	64
Clasp-knives:		
With several blades, fine	per dozen..	50
With one blade, fine	do....	16
With one blade, common	do....	8
Counters, 20 per cent. ad valorem.		
Chin-straps:		
For helmets or shakos of officers, detached	per pair..	8
For helmets or shakos of troops	per dozen pairs..	30

		Duties.
Codfish tongues, in small barrels or in jars	each..	$0 12
Cork, in leaf	per thousand..	3 00
Chandeliers, with rings or crystals, 20 per cent. ad valorem.		
Carcel lamps of every quality	each..	2 00
Chestnuts	per barrel..	75
Codfish, dried salt codfish and haddocks	per hundred-weight..	40
Combs:		
Of gilt brass, mounted with imitation stones	per dozen..	7 00
Of tortoise shell, for ladies	do....	4 00
Of horn, for ladies	do....	1 00
Cotton plush, for hats	per ell..	6
Cambric-muslin:		
Fine and ordinary, of 30 inches and under	do....	6
Very common, of 30 inches and under	do....	4
Camlet, of 30 inches and under	do....	5
Caps, for drain-pipes of sailing vessels	per gross..	40
Clothes-racks:		
Of wood	each..	10
Of iron or copper	do....	16
Cruets of wood or painted tin, without decanters	do....	15
Canopies of brass, 20 per cent. ad valorem.		
Copying-presses	each..	1 00
Chafing-dishes:		
Of earthenware, with iron hoops	do....	15
Of iron	do....	25
Curtains:		
Of silk	per dozen..	2 00
Of muslin	do....	1 00
Cocks:		
Of brass for large pieces, for large pans, casks	per pound..	3
Of lead for large pieces, for large pans, casks	do....	2
Carriage wheels and those of carts or wagons	per pair..	2 00
Casters:		
Of brass	per dozen..	40
Of iron	do....	25
Cavalry-swords for troops, free of duty.		
Carpets for rooms or parlors	each..	7 00
Carpenters' hatchets	per dozen..	1 00
Corkscrews	do....	40
Cotton-velvet	per ell..	8
Carriages:		
Coaches and calashes	each..	10 00
Gigs and quitterines	do....	5 00
Pleasure carts and tilburys	do....	5 00
For children, with springs	do....	50
Cowhide whips	per dozen..	25
Clapboards	per thousand..	75
Cow-skins, of various sorts	each..	64
Calf-skins:		
Varnished for covering holsters	per dozen..	3 00
Glazed	do....	2 00
Cache-peignes, or garniture of combs, with imitation stones	each..	75
Cushions, small, for portemanteaus	per dozen..	2 00
* Creas:		
Morlaix of thread, and thread and cotton, under 26 inches	per ell..	3
Morlaix of thread, and thread and cotton, of 26 inches and over	do....	4
Morlaix of pure cotton, under 26 inches	do....	2
Morlaix of cotton, of 26 to 32 inches	do....	2½
Calanderie, real, of 30 inches and under	do....	12
Calemande:		
Double, of 30 inches and under	do....	12
Single, of 30 inches and under	do....	6
Calenkart (painted cloth of India), of 30 inches and under	do....	6
Canevettes, of ordinary size, provided with decanters, gilt or not gilt, empty	each..	1 00
Cannigues, of marble	per hundred..	25
Combourg, of 30 inches and under	per ell..	3

* Thus modified by the law of July 20, 1859.

		Duties.
Couleuvres:		
Of copper, without alambics	per hundred-weight..	$3 00
Of pewter, without alambics	do....	2 00
Croudes:		
White, assorted, of 30 inches and under	per ell..	3
Gray, assorted, of 30 inches and under	do....	2
Carnation (cotton)	per pound..	20
Carpet-sacks and traveling-bags:		
Of rich material	each..	75
Of common material	do....	25
Cambray, real or cambrasine, of 30 inches and under	per ell..	03
*Cigars	per hundred..	1 00
Cigar-cases of every sort	per dozen..	25
Cigar-holders	do....	20
Dimity:		
Ribbed, figured, fine, of 24 inches or under	per ell..	6
Ribbed, figured, ordinary, of 24 inches or under	do....	4
Ribbed, figured, ordinary, and narrow	do....	3
Colored, with stripes, 34 inches in width	do....	5
Colored, narrow, under 24 inches	do....	3
Desks:		
Writing, of mahogany or choice wood	each..	8 00
Writing, of oak or common wood	do....	4 00
Drawers:		
Woolen	each..	25
Cotton	do....	12
Decanters:		
For oil or liquor stands, of fine glass	per pair..	12
For oil or liquor stands, of crystal	do....	25
Of crystal	do....	50
Of fine glass	do....	30
Of common glass	do....	20
Dice-boxes, of bone, leather, or wood	each..	50
Door fastenings, of iron, large	per dozen..	75
Dressing-cases:		
Of mother-of-pearl, with their contents, for ladies and gentlemen	each..	2 50
Rich, of mother-of-pearl, with their contents	do....	6 00
Of mahogany or rare wood	do....	1 50
Dolls, and all children toys, 20 per cent. ad valorem.		
Dolls, fine, and all children toys, 20 per cent. ad valorem.		
Dresses:		
Made up, of every sort and for every age	each..	3 00
In patterns of lace and lawn, from 5 to 10 ells	do....	2 00
In patterns of muslin, from 5 to 10 ells	do....	1 00
Dutch ovens of tin, with spirits and dripping pans	each..	1 00
† Drill:		
Fine and duck, of thread or thread and cotton (union) of 30 inches and under		7
Ordinary, of thread or cotton, of 30 inches and under	per ell..	6
Common, of thread or cotton, of 30 inches and under	do....	4
Of pure cotton, fine, of 30 inches and under	do....	4
Of cotton, ordinary, of 30 inches and under	do....	3
Blue, of cotton, called denims, of 22 inches and under	do....	2
Blue, of cotton, called denims, of 22 to 30 inches	do....	2½
Blue, of cotton, called denims, over 30 to 36 inches	do....	3
Of thread, or thread and cotton, from 4 to ⅞ wide	do....	9
Of thread, or thread and cotton, under ⅞ wide	do....	5
Of pure cotton of 4 to ⅞ wide	do....	5
Of pure cotton under ⅞ wide	do....	4
Demijohns:		
Empty, small, from 1 to 3 gallons	each..	4
Empty, over 3 gallons	do....	6
Filled with vegetables	do....	25
Draught-boards, plated:		
Of ivory or ebony	do....	2 00
Of ordinary wood	do....	25
Ordinary, small, of 1 foot square and under	do....	10

* Modified by law of October 6, 1881; to take effect January 1, 1882.
† Thus modified by the law of July 20, 1859.

		Duties.
Dice	per dozen	$0 50
Dolmans, assorted, with gold or silver lace	each	10 00
Dominoes (game of)	do	10
Drums for children	per dozen	60
Damasks, cotton cloth:		
Under ¾ per ell		6
Above ¾ (see article 24, third paragraph).		
Deer-skins or chamois skins	each	30
Désirés for dresses, of 30 inches and under	per ell	5
Digdales, empty	each	2
Eau de Cologne:		
Per 12 bottles		12
In large square flasks	per dozen	25
In half-bottles	do	40
Eschalots	per bunch	5
Envelopes	per hundred	12
Epaulets:		
Of fine gold for superior officers	per pair	2 00
Of fine silver for superior officers	do	1 50
Of imitation gold or silver for superior officers	do	1 50
Of fine gold for inferior officers		1 50
Of fine silver for inferior officers		1 25
Of imitation gold or silver for inferior officers	do	1 00
Silks	per dozen	1 25
Of thread, wool, or cotton	do	75
Essence:		
Of clove, vanilla, and like sort	per bottle	60
Of perfumes, in small crystal vials	each	10
Of soap, in small vials	per dozen	50
Engravings, other than those prohibited (20 per cent. ad valorem).		
Erasers, for offices and counting-rooms	per dozen	50
Engravings, small and common, without frames other than those prohibited, per dozen		12
Eye-glasses:		
Mounted in gold	each	30
Mounted in silver	do	20
Mounted in tortoise shell	per dozen	90
Mounted in gilt, brass, or silver-plated	do	75
Mounted in iron	do	30
Earthenware	per dozen pieces	12
Earthen moulds, for sugar	each	4
Elastic bands, for arm sleeves of cloth, ad valorem.		
Estoupilles, of every quality	per ell	6
Frames, gilt or not, of every dimension, for pictures or mirrors, 20 per cent. ad valorem.		
Fruits (of Chamberry)	per barrel	50
Framework, not mounted, 20 per cent. ad valorem.		
Ferrules:		
Cast, gilt, or silver plated	per pair	6
Cast, ordinary, and common	do	3
Funnels:		
Of copper	each	15
Of tin	do	6
Fans:		
Fine, of silk stuffs, spangled, or of ivory detailed, mounted on ivory		2 00
Ordinary, of common stuff, or of spangled paper, mounted on fine wood	per dozen	75
Common, of painted paper, not spangled, mounted on common wood, or on bone	per dozen	12
* Flour:		
Corn	per barrel	1 00
Wheat	do	1 00
Rye	do	1 00
Festoons, embroidered, of muslin	per ell	03
Fifes:		
Mounted with silver	each	30
Ordinary	per dozen	60
Flageolets	do	25

* Thus modified by the law of July 20, 1859.

		Duties.
Figs, in small barrels, cases, or baskets	each..	$0 25
Fleams, for bleeding horses:		
With several blades	each..	12
Single	per dozen..	30
Flannel, of 30 inches and under	per ell..	6
Foils, mounted or not	the 12 foils..	75
Flowers:		
Artificial, in bouquets, with porcelain pots and covers	each pot..	2 00
Same, with porcelain pots, and without covers	per pot..	1 00
Same, in cases of 12 bouquets	per case..	3 00
Same, in bouquets	each bouquet..	30
Same, spangled, in garlands	each garland..	60
Flutes:		
With 6 to 8 keys	each flute..	1 50
Ordinary	per dozen..	3 00
Fountains, of tin or earthenware	each..	30
Fringe:		
Of silk	per ell..	6
Of imitation lace	do....	3
Of cotton	do....	2
Of imitation gold or silver	do....	10
Of gold or silver	do....	20
Flax-seed	per hundred pounds..	1 00
Fish-hooks, assorted	per M..	50
Fishing-lines, with floaters	per pound..	4
Fruits:		
Dried, of every quality	per pound..	2
In brandy	per 12 bottles..	50
Preserved in vinegar	do....	30
Imitation, in marble	per dozen..	15
In brandy, in glass bowls	each..	50
Fowling pieces:		
Fine silver plated, or not, double barreled, with or without case	each..	6 00
Same, single-barreled, with or without case	do....	3 50
Same, ordinary double-barreled	do....	1 50
Same, ordinary single-barreled	do....	1 00
Files, assorted	per dozen..	30
Fine combs:		
Of tortoise shell, small	do....	50
Of horn, divers, common	do....	25
Feathers, of all colors, for hats, three feathers to the set	per dozen sets..	75
Frying-pans, and earthen sauce-pans, for kitchens	per dozen..	1 50
Fish-kettles:		
Of brass	per pound..	10
Of tin	each..	20
Flower pots, of porcelain	per pair..	50
Frock coats:		
Of fine cloth	each..	3 00
Of ordinary cloths and various stuffs	do....	2 50
Foot-stools	per dozen..	1 50
Flat bolts:		
Of brass	per dozen..	1 00
Of iron	do....	50
Frills, of lace, thread, or silk, cambric, embroidered, &c	per dozen..	3 00
Filtering stones	each..	75
Fluting-irons	per dozen..	1 25
Garlic, per bunch, or in bulk	per hundred weight..	2 00
Grosfort, of 30 inches and under	per ell..	3
Glove-openers	per dozen..	1 00
Grooving-planes	per dozen pairs..	1 00
Game-bags	per dozen..	2 00
*Glue	per pound..	4
Geese-legs	per pot..	60
Gauges or aerometers	each..	15
Gold lace:		
Fine, over 18 lines	per ell..	1 50
Fine, over 12 to 18 lines	do....	80
Fine, under 12 lines	do....	40

*Thus modified by the law of July 20, 1850.

		Duties.
Gloves:		
Of skin, for men	per dozen..	$1 50
Of skin, ordinary, for men and women	do....	1 00
Of fine kid, for women, long for arms	do....	1 75
Of silk, for men and women	do....	50
Of wool, thread, or cotton	do....	40
For women, lined	do....	1 25
Gauze:		
Of silk and thread, with gold or silver, for dresses	per ell..	20
Of silk, plain, for dresses	do....	10
Of cotton, of 30 inches and under	do....	6
Gin:		
In casks of 60 gallons or less	per gallon..	25
In cases holding 12 flasks	per case..	75
In jugs or jars of a pint and a half	per dozen jugs or jars..	75
In jugs or jars of a pint	per dozen..	50
Globes or geographical spheres	each..	50
Globes for parlors:		
Hung on chains	do....	2 00
Without mountings	do....	1 00
Gum-lac, gum-arabic, &c., 20 per cent. ad valorem.		
Gouges, assorted, for carpenters	per dozen..	30
Garden seed, free of duty.		
Gazogenes, or apparatus for making gaseous waters	each..	1 00
Graphometers:		
With glasses or spy-glasses	do....	1 00
Single alidades	do....	75
Grenades (projectiles), free of duty.		
Grates, for kitchens	per dozen..	1 00
Gaiters:		
White or colored	do....	50
Of cloth	do....	1 00
Ginghams:		
From 20 to 25 inches	per ell..	2
From 25 to 30 inches	do....	3
From 30 to 35 inches	do....	4
From 35 to 40 inches and under	do....	5
Of India, real, light, colored, common, of 30 inches and under	do....	3
Guitars	each..	1 00
Garments:		
Of fine cloth, plain, ready made	do....	3 00
Ordinary cloth	do....	2 50
Of divers cloth for children	do....	2 00
Embroidered in fine gold	do....	5 00
Of fine cloth embroidered in fine silver	do....	3 00
Of divers cloth, cut and not sewn	do....	2 50
Ready made, for children	do....	1 00
Gorgets	do....	25
Garters of skin, or divers stuffs	per dozen pairs..	50
Grindstones, assorted	each..	25
Glass dishes	per dozen..	75
Goose-quills, writing, and tooth-picks	per thousand..	30
Gunpowder	per pound..	5
Girths:		
Made up	each..	25
In piece	per ell..	3
Garnets:		
Imitation (see Glass necklaces).		
Fine, of every quality, per string of 12 rows	the string..	1 00
Glasses or goblets of crystal:		
Cut, with stand, cover, or case	each..	25
Blown, with stand, cover, or case	do....	25
Cut, without stand, with cover	do....	25
Blown, without stand, with cover	do....	25
NOTE.—Same as above, without cases or covers, shall pay like duties.		
Glasses or goblets, of fine glass:		
Cut or engraved, with stand	per dozen..	75
Cut or engraved, without stand	do....	50

		Duties.
Glasses or goblets, of fine glass:		
Blown or molded, with stand	per dozen..	$0 50
Blown or molded, without stand	do....	50
Cut, engraved, or blown, with or without stands, with cases or covers, large	each..	25
Glass, same as above, medium size	do....	12
Glass:		
For liquor or dessert, of crystal cut, with stand	per dozen..	25
For liquor or dessert, of crystal, cut, without stand	do....	15
For liquor (glass) blown, with or without stand	do....	25
For liquor, crystal, blown, with stand	do....	25
For liquor or dessert, of glass, cut, with or without stand	do....	25
For champagne, of crystal	do....	25
For champagne, of glass	do....	25
Common, of every size	do....	25
For lamps	do....	25
For watches	per gross..	2 50
For eye-glasses, ordinary or colored	do....	1 50
For chandeliers, of glass or crystal, with ferrules	per pair..	1 50
For chandeliers of glass, with ferrules	do....	50
For chandeliers	do....	25
Glass covers:		
Chiseled	per pair..	1 50
Plain	do....	50
Gimlets, assorted	per dozen..	25
Gun-flints	per thousand..	25
Goat-skins, glazed	per dozen..	50
Gold, burnt, free of duty.		
Galettes, of felt, for hats	per thousand..	1 50
*Hooks and eyes of every sort	per 12 small boxes of 36 to 42 pairs..	6
Holy-water basins, of metal	per dozen..	50
Hats:		
Of bearskin, for sappers	each..	50
Of black silk, for men	per dozen..	50
Of black silk and cotton, for men	do....	50
Cocked, with silver or gold lace	each..	8 00
Cocked, of silk, with plumes and plush, for superior officers	do....	4 00
Cocked, with silk trimmings and plush, for inferior officers	do....	2 00
Turned up, fine	per dozen..	9 00
Turned up, ordinary	do....	5 00
Turned up, woolen, for soldiers	do....	2 75
Round, fine, of felt or silk, for men or women	do....	5 00
Round, ordinary, of felt, silk, or cotton, for men or women	do....	3 00
Round, common, wool or cotton, for men or women	do....	2 00
Round, for adults, fine, felt or silk	do....	4 00
Round, for adults, ordinary, felt, silk, or cotton	do....	2 00
Round, for adults, common, wool or cotton	do....	1 50
Round, straw, Panama or Maracaïbo	do....	3 00
Round, straw, for children, fine, not trimmed	do....	2 00
Round, for children, ordinary	do....	75
Round, for children, of straw or osier	do....	60
Round, for ladies, trimmed with feathers, flowers, or lace	do....	8 00
Round, for children, same as above	do....	3 00
Leghorn, fine, for men	do....	2 50
Leghorn, fine, for children	do....	2 00
Hat-boxes	per dozen..	75
Helmets:		
Gilt or silver-plated, for officers	each..	2 00
For soldiers	per dozen..	3 00
For soldiers, ordinary, adorned	each..	1 00
Hogsheads, (see Casks).		
Hogsheads, empty	do....	25
Hinges:		
Of brass	per dozen..	25
Of iron	do....	12
Horses (stallions), free of duty.		
Horses (geldings or cut), free of duty.		
Hair (tufts of)	do....	50

Thus modified by the law of July 20, 1859.

		Duties.
Hogs, live, free of duty.		
Hunting-horns (instruments)	each..	$2 00
Hinges:		
Of iron, square, from 2 to 6 inches	per 12 pairs..	40
Of iron, square, from 7 to 12 inches	do....	75
Of iron, square, from 13 inches and over	do....	1 00
Of brass, square.	do....	50
Hunting-knives	each..	2 00
Horse-hair	per pound..	1
Hooks:		
Of brass, under 6 inches	per dozen..	25
Of brass, of 6 to 12 inches	do....	75
Of iron, under 6 inches	do....	10
Of iron, from 6 to 12 inches	do....	40
Of brass, of 13 inches and above	do....	1 50
Of iron, of 13 inches and above	do....	50
For boots	per pair..	3
Hides, tanned	per dozen..	2 00
Hand-vises:		
Large	per hundred-weight..	50
Small, for jewelers	per dozen..	1 00
Horsehair stuffs for sofas	per ell..	25
Horseshoes	the 4 shoes..	8
Hoop-iron	per hundred-weight..	75
Hoop-wood	per thousand..	1 50
Hooks:		
Of copper for wardrobes	per dozen..	80
Of iron for wardrobes	do....	40
Hay	per bale..	30
Holsters:		
Fine, with covers of bear or tiger skin, gold or silver lace, with plated or cast ferrules	per pair..	3 50
Fine, without covers, with plated ferrules	do....	1 50
Common, ordinary, without ferrules, with leather coverings	do....	1 25
Horsewhips:		
Fine	dozen..	2 50
Common	do....	1 50
Hatchets for roof coverers	do....	73
Hammocks:		
Of silk	each..	3 00
Of cotton, damasked and knitted	do....	1 00
Plain	do....	50
Herrings:		
Salted or in pickle	per barrel..	50
Smoked in one-fourth, one-eighth, or in boxes	each..	6
Harness for carriages and carts, 20 per cent. ad valorem.		
Harps	each..	10 00
Herses (instruments of husbandry). Free of duty.		
Hour-glasses	per dozen..	75
Hoes	do....	25
Housing:		
With gold lace	each..	5 00
With silver lace	do....	3 00
Of silk and thread, embroidered or not, colored	do....	1 50
Of cotton, plain and not embroidered, colored	do....	30
Hams	per pound..	2
Halters of leather, for horses	each..	25
Hammers, assorted	per dozen..	40
Honey	per bottle..	4
Howitzers (artillery). Free of duty.		
Hinges and bands of copper	per pound..	8
Hinges and bands of iron, assorted	per 12 pairs..	1 00
Hydrometers	per dozen..	50
Hoops for saddles:		
Of gilt, copper, or silver plated	per foot..	2
Of pure copper	do....	1
Handles of copper, glass, or crystal, for tables	per dozen pairs..	75
Hunting powder	per pound..	12
Hydraulic presses. Free of duty.		

		Duties.
Hat-racks, ad valorem.		
Harmonicas (instruments of music)	each..	$0 25
Handles for awls	per gross..	50
Hones	each..	3
Hat-linings	per dozen..	25
Hog-skins	do....	3 00
Horse-hides, glazed	each..	30
*Handkerchiefs:		
Of cotton	per dozen..	30
Of real Madras	per piece of 8 handkerchiefs..	1 00
Of Paliacate and Masulipatam cambric, real	do....	1 00
*Madras, Paliacate, Masulipatam style	per dozen..	30
Of thread, various patterns, col'd or striped, ¾ wide and under	per dozen..	75
Same as above, under ¾	do....	50
Of thread, fine, white, of ⅞ and above	do....	1 00
Of thread, common, white, of ⅞ and above	do....	50
* Blue, called imitation Romal, thick	do....	15
* Of printed calico, narrow, common	do....	20
* Of organdy, white and colored	do....	37
* Of cotton, fine, for pocket	do....	50
* Of muslin, ordinary cotton, narrow, white or colored	do....	20
* Of fine muslin, white and colored	do....	50
* Of ordinary muslin, white and colored	do....	50
* Of common muslin, white and colored	do....	30
Of cambric muslin, embroidered	do....	1 50
Of cambric, embroidered, of ¾ and above	do....	5 00
Of cambric, embroidered, under ¾	do....	4 00
Of cambric, printed or festooned	do....	3 00
Of cambric, printed, without being festooned, for head-wear	do....	2 00
Of cambric, printed, for pocket	do....	1 50
Of cambric, plain, in pieces of ¾ and above	do....	2 00
Of cambric, plain, in pieces under ¾	do....	1 50
Of silk, black, over ¼	do....	2 00
Of silk, black, under ¼	do....	1 00
Of silk, colored, for pocket	do....	2 00
Health-pills in boxes	per box..	5
Heads of stills without boilers	per hundred-weight..	3 00
Hand-saws assorted	per dozen..	2 00
Household twist, white and unbleached, of 30 inches and under	per ell..	3
Iron safes	each..	8 00
Isinglass	per pound..	5
Inkstands:		
Of metal or porcelain	each..	6
Common	per dozen..	40
Incense	pound..	2
Ink:		
In powder or in small jugs	per dozen..	20
In bottles or in large jugs	do....	75
In half bottles or in half jugs	do....	37
Red, in small flasks	do....	12
For marking clothes	per case..	12
Iron:		
In bars	per hundred-weight..	50
In block or plates	do....	50
Ironing-irons	per dozen pairs..	1 00
Imitation gold and silver lace:		
Over 18 lines	per ell..	1 00
From 12 to 18 lines	do....	50
Under 12 lines	do....	30
Iron railings for gates or balconies	per hundred-weight..	2 00
*Indigo	per pound..	10
Images:		
Assorted, other than those prohibited	per hundred..	50
Framed, small, same as above	do....	1 00
Under glass and cover, same as above	do....	50
Instruments:		
Of surgery, 20 per cent. ad valorem.		
For military music	the set..	20 00

* Thus modified by the law of July 20, 1859.

		Duties.
Ivory:		
Objects of ivory not provided for, 20 per cent. ad valorem.		
Rough or elephant's tusks	per pound..	$0 06
Impermeable paper	per ream..	40
Ironmongery not foreseen, 20 per cent. ad valorem.		
Inkstands empty, of every size	per hundred..	40
Jewelry:		
Imitation, not foreseen, 20 per cent. ad valorem.		
Fine, not foreseen, 10 per cent. ad valorem.		
Jugs	per dozen..	1 00
Jointing-planes	do....	25
Juniper-grain	per pound..	3
Jaconet, of 30 inches and under	per ell..	6
Jars, assorted	each..	50
Jewsharps, of iron	per gross..	60
Jointing-planes:		
With irons	per dozen..	1 50
Without irons	do....	1 00
Kids, live. Free of duty.		
Kitchen utensils:		
Of brass	per hundred-weight..	12 00
Of sheet iron or of wrought iron	do....	1 00
Kettles:		
Of brass	each..	20
Of pinchbeck or tin	do....	8
Of iron or cast iron	per hundred-weight..	75
Of tin or sheet iron	do....	1 12
Kerseymere:		
Of pure wool, twilled, over 4 quarters	per ell....	25
Of pure wool, twilled, under 4 quarters	do....	15
Of wool and cotton, twilled, above 4 quarters	do....	20
Of wool and cotton, twilled, under 4 quarters	do....	12
Key bugles	each..	50
Knives:		
Ordinary, for table, without forks	per dozen..	50
Ordinary, for table, with forks	do....	1 00
For cutting indigo	do....	50
Fine, for table, with forks	do....	1 25
Fine, for table, without forks	do....	75
Common, for table, without forks	do....	20
Of ivory or bone, for paper	do....	25
Large, for belt, styled Flemish (prohibited).		
Large, for coopers	per dozen..	75
For furriers	do....	1 00
Kirsch-wasser:		
In bottles	do....	1 00
In liters	do....	1 50
Lining for hats of shot silk	per dozen..	50
Lead pencils:		
For offices, per packs of 12 pencils	per 12 packs..	40
Same as above, per packs of 6 pencils	do....	20
For drawing purposes	per gross..	25
Leather straps for spurs	per dozen..	15
Lace:		
Of thread or silk in pieces for dresses	per ell..	25
Of cotton other than that in pieces	do....	16
Entre-deux, and in ribbons of silk or thread, over 4 inches wide	do....	8
Same, over 3 up to 4 inches wide	do....	5
Same, of 1 to 3 inches	do....	3
Same, under 1 inch	do....	2
Entre-deux, in ribbons of cotton, from 3 to 4 inches wide	do....	3
Same, over 4 inches	do....	5
Same, from 1 to 3 inches	do....	2
Same, under 1 inch	do....	1
Of fine gold or silver, assorted	do....	40
Of imitation gold or silver, assorted	do....	8
Lavender water, in half bottles	each..	4
Labels, divers	per hundred..	10

		Duties.
Lanterns:		
Large, of varnished copper or silver plated	each..	$0 25
Small, of varnished copper or silver plated	do....	12
Of tin, large	do....	18
Of tin, small	do....	8
Leaves of wood, for the making of hat boxes	per dozen packages..	2 00
Looking-glasses, gilt or not, framed or not, of every dimension (other than mirrors)	per square inch..	1
Long cloth:		
Blue, of 30 inches and under	per ell..	3
Red, of 30 inches and under	do....	5
Laces:		
Of silk	per dozen..	8
Of thread or cotton	do....	6
Lawn:		
Fine, plain, or embroidered, of 30 inches and under	per ell..	15
Ordinary, plain, or embroidered, of 30 inches and under	do....	10
Common, plain, or embroidered, of 30 inches and under	do....	6
Of cotton or gauze, of 30 inches and under	do....	6
Liquors:		
Of absinthe	per case of 12 bottles..	1 00
Of absinthe	per case of 12 liters..	1 50
Sweet, of every quality	per 12 bottles..	1 25
Sweet, of every quality	per 12 liters..	1 50
Sweet, of every quality, in baskets of 2 compartments	per basket..	40
Latches:		
Of iron, with brass handles	per dozen..	75
Of iron, with iron handles	do....	25
Loto (game of)	each..	25
Lenses of glass for the eyes	do....	25
Lard, in leaf (bacon)	per pound..	2
*Lard	per hundred weight..	1 00
Lamp-black	per cornucopia..	1
Lozenges, divers	per pound..	6
Lead:		
In bars	do....	2
In pigs	each..	1
Liquor stands and cruets:		
Plated, fine, with crystal decanters	each..	2 25
With decanters and glasses	do....	1 00
Leeches, free of duty.		
Locks:		
Of brass, over 6 inches in width	each..	15
Of brass, over 6 inches, assorted	per dozen..	1 50
Of iron, assorted for doors	do....	1 00
Of iron, for trunks and drawers	do....	25
Of iron, mounted on wood	do....	75
Leather aprons	each..	75
Linen:		
Fine, ordinary, of thread, or union, for shirts of every make, of 30 inches and under	per ell..	5
Very common, same as above, of 30 inches and under	do....	5
Above the dimensions hereabove (see article 24, third paragraph), gray, or brown Holland, fine, ordinary of every make, of 30 inches and under	per ell..	5
Gray, very common, of every make, of 30 inches and under	do....	4
Gray, above the sizes hereabove (see article 24, third paragraph).		
For sheets of $\frac{3}{4}$ to $\frac{1}{4}$	per ell..	7
For sheets above $\frac{1}{4}$ up to $\frac{1}{4}$	do....	12
For sheets of $\frac{1}{4}$	do....	20
For sheets above $\frac{1}{4}$ (see article 24, third paragraph).		
Damask, white or colored, $\frac{1}{4}$ in width	do....	12
Damask, above $\frac{1}{4}$ (see article 24, third paragraph).		
Damask, under $\frac{1}{4}$	do....	8
Duck, of 30 inches and under	do....	4
Duck, above 30 inches (see article 24, third paragraph).		
Bagging, of $\frac{3}{4}$ width and under	do....	2
Bagging, above $\frac{3}{4}$ (see article 24, third paragraph).		

* Thus modified by the law of July 20, 1859.

	Duties.
Linen:	
For napkins, of cotton, or of thread and cotton of 30 inches and under, per ell	$0 05
For napkins, same, over 30 inches (see article 24, third paragraph).	
For table-cloths, of cotton, or of thread and cotton, of 30 inches and under.....per ell..	7
For table-cloths, same as above, over 30 inches (see article 24, third paragraph).	
Matches*, per gross, or 144 boxes	20
Money:	
Coined, free of duty.	
Burned, or in ingots, free of duty.	
False, in leaf.....the 100 leaves..	50
Memorandum-books (see Books).	
Mushrooms, dried.....per pound..	12
Masonic decorations, complete, 20 per cent. ad valorem.	
Molds:	
For hats.....per dozen..	2 00
For shoes, assorted.....per dozen pairs..	3 00
For sugar.....each..	04
Muskets, with or without bayonets, free of duty.	
Measures:	
Gallons, of copper.....each..	40
Gallons, of tin.....do...	16
Mountings for coffins.....do...	6 00
Mares, free of duty.	
Mattocks, of iron.....per dozen..	40
Machines:	
For preparing, pealing, and winnowing cotton, and others for saving hand-labor, or for ameliorating the products of the ground, free of duty.	
For cutting corks, 20 per cent. ad valorem.	
Of glass, for making fire, 20 per cent. ad valorem.	
Madras:	
Real, in pieces, for dresses, of 30 inches and under.....per ell..	8
Imitation, in pieces, for dresses, of 30 inches and under.....do....	4
Maize, shelled.....per barrel..	1 00
Mandolines.....each..	1 00
Machetes:	
With bone or wooden handles.....per dozen..	30
Long, with or without hilts, with leather scabbards.....do....	1 00
Mantles:	
Of cloth, with gold or silver lace.....each..	5 00
Of cloth, fine, plain.....do....	2 50
Ordinary and common.....do....	2 00
Mantillas:	
Of silk, for ladies.....do....	2 00
Of silk, for young girls.....do....	1 25
Of lace and muslin.....do....	75
*Mackerel.....per barrel..	50
Marble:	
For chests of drawers, pier-tables, bureaus, or tables.....each..	1 00
For tombs, from 6 to 7 feet long, engraved.....do....	3 00
For tombs, from 6 to 7 feet long, plain.....do....	2 00
For tombs of children, from 3 to 4 feet long, engraved.....do....	1 00
For tombs of children, from 3 to 4 feet long, plain.....do....	50
Masks:	
Of wire gauze, for fencing.....per pair..	20
For carnival, of pasteboard.....per dozen..	1 00
For carnival, of oil-cloth and wire gauze.....do....	2 00
Mauls, of iron.....do....	1 50
Mattresses of horse-hair:	
Large.....each..	1 50
Small.....do....	75
Masts:	
Small, called spars.....each..	40
Large, 20 per cent. ad valorem.	
Medals, of brass, for rosaries.....per hundred..	25

* Thus modified by the law of July 20, 1859.

		Duties.
Merino:		
Small width	per ell..	$0 08
Large width	do....	15
Mirrors:		
Of 2 by 3 inches, mounted in pasteboard or wooden leaves	per dozen..	4
Of 3 to 4, by 5 to 7 inches, mounted in paste-board or wooden leaves	do....	8
Of 4 to 7 by 7 to 12 inches, mounted in paste-board, with or without drawers	do....	50
Of same dimensions, mounted in divers woods, with or without gilt, for dressing tables	do....	70
On pivot, or without drawers, mounted on wood of 6 inches and over in diameter, by 10 to 15 inches in height	do....	2 50
Same over 6 inches in width or diameter by 6 to 10 inches in height, each		25
Of 7 to 10 inches by 12 to 15 in height, frame or not, with or without gilt, for dressing tables	per dozen..	150
Above dimensions hereabove given (see looking-glasses).		
Mortars:		
(Artillery) free of duty.		
Of marble with or without pestles	per dozen..	2 00
Of brass with or without pestles	do....	10
Of iron with or without pestles	do....	4
Molds:		
For bullets, of copper	per dozen..	1 50
For bullets, of iron	do....	75
For pastry, of copper	do....	50
Of tin	do....	30
Mills:		
Of iron; water or animal power, free of duty.		
For maize, cotton, or coffee, free of duty.		
For grinding pepper or coffee	each..	6
Tobacco	do....	1 00
Musquetons, for cavalry, free of duty.		
Muslin:		
White or colored, plain or embroidered, of ¼, under muslinet, and muslin dimity	per ell..	5
White or colored, plain or embroidered, muslinet and muslin dimity, above ¼ up to ½	per ell..	6
Divers, of wool	do....	8
Macamby	per barrel..	50
Malaguettes	per pound..	4
Mogues, of tin	per dozen..	25
Mouse-traps	do....	25
Marsh-mallow (flowers of)	per pound..	5
Morocco-skins:		
Real	per dozen..	1 00
Imitation	do....	50
Molds, forms for sugar	each..	4
Mirobon, stuff mixed of silk and cotton, of 30 inches and under	per ell..	8
Mosquito-nets of every sort	each..	2 00
Mustard:		
In pots	per dozen..	1 00
In flasks	do....	50
Mustard-pots:		
Of glass	do....	16
Of crystal	do....	60
Of metal	do....	50
Mutton, salted	per barrel..	2 00
Mules live. Free of duty.		
Mats, for dishes	per dozen..	50
Nuts	per barrel..	75
Needles:		
Fine, for sewing	per M..	10
For sailmakers	do...	25
*Nails:		
Iron, assorted	per hundred weight..	75
Brass, assorted	do....	4 00
Gilt or silver plated	per M..	20

* Thus modified by the law of July 20, 1859.

	Duties.
Necklaces:	
Of coral	$0 25
Of glass, divers	15
Of rock work, baked earth, to embroider purses, per pound	15
Neckties:	
Of silk, under ¼, per dozen	1 50
Of silk, of ¼ and under, do	1 00
Of cotton and muslin, embroidered, do	80
Of cambric or cambric muslin, embroidered, in half neckerchiefs, do	2 00
Same, embroidered at two ends, in whole neckerchiefs, do	4 00
Neckerchiefs, frills, lace tippets, &c., per dozen	4 00
Nutmegs, per pound	08
Nankeen:	
Real and imitation, wide, white, yellow, and blue, in pieces or patterns of from 4 to 6 ells, per ten pieces or patterns	2 00
Real and imitation, narrow, in pieces or patterns of 4 to 7 ells, do	1 50
Napkins:	
With table-cloths, white, damask striped, per dozen	2 50
Same, without table-cloths, do	1 50
With table-cloths, plain, striped of color, do	1 00
Same, without table-cloths, do	75
With table-cloths, unbleached thread, striped of color, do	75
Same, without table-cloths, do	50
Of cotton, wide, damask, with table-cloths, do	1 00
Of cotton, damask, without table-cloths, do	75
* Of cotton, with colored stripes, do	40
* Of cotton, narrow, small, common, do	20
Night lights:	
Of glass, each	10
Of porcelain, do	15
Of metal, do	8
* Nankinettes:	
Of all colors, with stripes or plain, for spring florentine, of 22 inches and under, per ell	1½
Of 22 to 26 inches, do	2
Of 26 to 30 inches, do	2½
Of 30 to 36 inches, do	3
From 36 to 42 inches, do	3½
Nansoute:	
Under ¼ wide, do	5
Of ¼ wide and above, up to ½, do	6
Oars, each	6
Oats:	
In barrels, per barrel	30
In demijohns, per demijohn	12
Oxen, live. Free of duty.	
Ox-hearts, in small barrels, per barrel	40
Oznaburg:	
White, half white, and brabant, up to 30 inches, per ell	53
White, half white, and brabant, above 30 inches. (See article 24, third paragraph.)	
Gray, of 30 inches and under, per ell	2
Gray, above 30 inches. (See article 24, third paragraph.)	
Olive oil:	
In casks, per gallon	20
In cans of 3 to 4 gallons, per can	75
In half cans, per half can	37
In baskets of 12 bottles, per basket	50
In liters, per liter	75
In cases of 30 vials, per case	60
In cases of 12 bottles, do	20
Oils:	
For lighting purposes, per gallon	5
Linseed and turpentine, do	12
Linseed and turpentine, in cans of 3 to 4 gallons, per can	40
Of almond, per bottle	12
Of almond, per pound	10

* Thus modified by the law of July 20, 1859.

	Duties.
Oysters, pickled, in small barrels or pots.....per barrel or pot..	$0 18
Opera glasses or eye-glasses, richly mounted .....each..	1 00
Opear-glasses, gilded or silver plated, brass, iron, tortoise-shell .....do....	40
Of wood or paste board.....do....	15
Ochre, yellow or red .....per barrel..	75
Onions:	
In bunches .....per bunch..	5
In bulk.....per hundred weight..	1 00
Olives:	
In flasks .....per 12 flasks..	20
In small barrels.....per small barrel..	30
In small pots.....per small pot..	8
Organs, 20 per cent. ad valorem. (See article 24, first paragraph.)	
Organs, for churches. Free of duty.	
Ornaments:	
For bridles, of pewter .....per gross..	66
For bridles, of gilt, brass, or silver plated.....do....	1 50
For churches (20 per cent. ad valorem.)	
For priests (20 per cent. ad valorem.)	
Overcoats:	
Of cloth or kerseymere .....each..	2 50
Of other stuffs .....do....	1 50
Oil cloth:	
Of 30 inches and under .....per ell..	8
Above 30 inches. (See article 24, third paragraph.)	
Pressing-irons, for hatters or tailors .....per dozen pairs..	1 25
Piano-fortes:	
Grand.....each..	10 00
Square.....do....	8 00
Pig-iron.....per hundred weight..	50
Printed calicoes:	
(Chintz) red, blue, and others, wide, from 26 inches in width up to 30 per ell	4
(Chintz) narrow, of 26 inches and under.....per ell..	3
(Chintz) above 30 inches. (See article 24, third paragraph of the law.)	
Petticoats:	
Ready-made, plain.....each..	1 00
Ready-made, embroidered .....do....	2 00
Pickled-tongues .....per barrel..	75
Pillows and bolsters of feathers. Prohibited.	
Palettes:	
For painters, of ivory.....per dozen..	20
For painters, of divers woods.....do....	12
Parchment .....per 12 leaves..	75
Perfumery:	
Assorted, per trunk 2 feet long and 1 wide. Assorted, per trunk above these dimensions. (See article 24, third paragraph.)	
Pastes:	
Vermicelli, macaroni, &c .....per pound..	3
Almond, cocoa .....do....	10
Paints, of every quality .....do....	0½
Pekin, of all colors, 30 inches and under.....per ell..	8
Pearl-ashes .....per hundred weight..	75
Partridges, preserved .....per pot..	25
Pearls:	
Imitation .....per stock..	50
Fine. (See Fine jewelry.)	
Paint-brushes, assorted.....per dozen..	50
Pipes, empty, of 100 to 120 gallons .....each..	25
Pistols:	
With hair-triggers or percussion, with their boxes and accessories, per pair.....	9 00
Ordinary, with or without percussion, without boxes .....per pair..	2 00
For cavalry. Free of duty.	
Plates:	
For shakos of troops, of brass .....per dozen..	24
For shakos of troops, gilded and silver-plated.....do....	50
For coffins, divers.....do....	3 00

		Duties.
Platillas:		
White, of every quality over ¾ wide, same tax as upon linen for shirts. (See Linens.)		
White, fine, of thread or union, ¾ wide and under	per ell..	$0 06
Ordinary and common, of thread or union ¾ wide and under	do....	5
Gray, of every quality, 30 inches and under	do....	2
Plaster	per barrel..	25
Pack-saddles	each..	25
Pine lumber	per thousand..	1 75
Paving stones (of Barsac), of every dimension	apiece..	05
Plumes:		
Of fine feathers	each..	40
Of rooster's feathers	do....	25
Powder flasks:		
Of brass, assorted	per dozen..	4 00
Of bone, assorted	do....	2 50
Pears, dried	per basket..	30
Peas, of every sort	per barrel..	25
Peas of Iris (issue peas)		3
Pepper, of all species	per pound..	2
Polygraphs	each..	75
Pomatum:		
In small pots and ordinary sticks	per dozen..	25
In large stone or tin pots	per pound..	2
In glass hollow pots	per dozen..	50
In pots, sticks, and in glasses, other than of the dimensions hereabove given. (See article 24, third paragraph.)		
Pommels	per dozen pommels..	12
Potatoes	per barrel..	40
Potatoes, in small baskets	each..	6
Pumps:		
Wooden, for vessels	do....	2 00
For fires. Free of duty.		
With winches, for wells	each..	1 00
Hand, of copper, for distilleries	do....	50
Hand, of tin, for distilleries	do....	37
Hand, of wood, for distilleries	do....	12
Porcelain, fine and common	per piece..	3
Pencil holders:		
Fine, of gold	each..	25
Fine, of silver	do....	16
Ordinary, of silver	do....	10
Of silver-plated brass	do....	4
Of pure brass	per dozen..	30
Portfolios:		
Large, styled ministerial	each..	75
Pocket, large, of 6 inches, or more than 6 inches, with clasps	per dozen..	40
Same as above, under 6 inches, with clasps	do....	20
Same as above, without clasps, assorted	do....	12
Penholders	do....	25
Powder:		
Face	per 12 pounds..	12
Litharge, gold, or silver	per pound..	4
Of St. Ange and Aillaux	per box..	12
Of Seidlitz and soda water	per dozen boxes..	66
Of ginger	do..	50
Pulleys:		
Single, of wood, assorted	per inch..	1
Double, of wood, assorted	do....	2
Of brass	per pound..	10
Presses:		
For binding	each..	1 50
For stamping	do..	1 50
For compressing cloth, ad valorem. (See article 24, first paragraph.)		
Printing-presses	each..	4 00
Projectiles of artillery, of every sort, not denominated. Free of duty.		
Prunes and plums	per pound..	2
Planes:		
With irons	per dozen..	75
Without irons	do....	50

		Duties.
Pruning-knives	per dozen	$0 40
Pictures:		
In oil, with or without frames. Free of duty.		
Engraved, colored or not, and sacred ones, of 3 to 4 by 3 to 6 inches, with gilt frames	each	14
Engraved, colored or not, and sacred ones, with gilt frames, from 6 to 8 by 6 to 12 inches	each	28
Same, and sacred ones, with gilt frames, from 9 to 11 by 13 to 15 inches, each		50
Same, 12 to 12 by 16 to 24 inches	each	75
Same, from 31 to 36 by 35 to 40 inches	do	2 50
Same, from 21 to 30 by 25 to 34 inches	do	1 20
Same, of greater dimensions, 20 per cent. ad valorem. (See article 24, first paragraph.)		
NOTE.—Pictures, colored or not, and sacred ones, with frames not gilt, within above dimensions, shall pay half of the duty fixed on those with gilt frames.		
Painters' tablets:		
Of ivory	per dozen	25
Of wood	do	16
Piano-stools	each	50
Pincers	do	5
Packing-cloth:		
Of ¾ in width and under	per ell	2
Above ¾. (See article 24, third paragraph.)		
Plaits:		
Of fine gold or silver, for vests	per ell	6
Of imitation gold or silver, for vests	do	5
Of silk	per 12 ells	6
Of wool, thread, and cotton	do	3
Pipes, of iron or cast iron, for water purposes	per hundred-weight	1 00
Pork:		
In casks	per cask	2 50
In barrels	per barrel	1 50
Pigs' feet and ears, in barrels	do	1 50
Pickaxes and mattocks	per dozen	1 00
Plates, for making cassava	each	20
Polonaise, of 30 inches and under	per ell	5
Paper:		
For drawing, plans, charts, called "Great Eagle"	per 100 sheets	1 00
Petition, cut, fine, and gilt edged	per ream	1 00
Petition, not gilt edged	do	75
Fine, above 15 inches	do	60
Ordinary, 15 inches and above	do	70
Common, for schools, under 15 inches	do	15
Letter, gilt edged	do	60
Letter, not gilt edged	do	48
For envelopes, cartridges, and stuffing, gray, blue, yellow	do	12
Ruled for music	per quire	12
For tapestry, with rich designs or subjects, velveted or satined	per roll	25
For tapestry, with varied designs or flowers, velveted or satined, without gilt	per roll	18
For tapestry with plain designs, velveted or satined	do	6
For tapestry, ordinary, with plain designs, varied or with flowers, without gilt, not satined, glazed or not glazed	per roll	3
Plush cockades:		
For inferior officers	pair	30
For superior officers	do	60
Pouches:		
For shot, plain	dozen	60
For shot, double	do	1 20
Percussion caps	per thousand	20
Plates:		
Of tin and pewter	per dozen	50
Of wicker	do	50
Composition	do	75
Pails or buckets, the nest assorted	do	1 00
Pails or caskets	do	75
Pans, large, of copper	per pound	6

		Duties.
Purses:		
Of beads, or of steel	per dozen..	$1 00
Silk, with clasp of gold or silver	each..	12
Without clasps, with compartments or with rings	per dozen..	1 00
With clasps of gilded brass or silver-plated	do....	2 50
Of ordinary materials	do....	50
Padlocks:		
Of brass	do....	1 00
Of iron	do....	30
Penknives:		
Fine	per dozen..	50
Ordinary	do....	50
Playing cards	the six packs..	25
Pasteboard, in sheets, assorted	per dozen..	16
Plaices, for hatters	do....	50
Plows. Free of duty.		
Preserve-dishes, of glass or porcelain	per pair..	50
Preserves, dried or liquid	per pound..	20
Preserved:		
Meats, vegetables, &c	per box..	10
Same as above, in half or quarter boxes	each..	4
Pier-tables:		
Gilt	each..	4 00
Of mahogany	do....	3 00
Pickles:		
In ancres	per ancre..	40
In jars	the 12 jars..	30
Paint-boxes:		
For drawing	per single box..	50
For drawing	per double box..	1 00
Pins:		
Divers, for toilet	per package of 12 sheets..	12
Divers, for toilet, in bulk	per pound..	16
Platillas:		
Wide, of ⅞, of thread, or thread-cotton	per ell..	6
Narrow, under ⅞, of thread, or thread-cotton	do....	4
Of pure cotton, of ⅞ width	do....	3
Of pure cotton, narrow, under ⅞	do....	2
Rouen, flowered, of 40 inches and under	do....	6
Rings:		
Of brass, for curtains	per gross..	50
Of metal, for bureau and closet keys	do....	1 00
Of iron, for tents	do....	25
Rifles:		
Fine, single or double barrel	each..	4 00
Ordinary, single or double barrel	do....	3 00
Razor-strops	per dozen..	50
Rockets and crackers	per gross..	30
Revolvers	each..	6 00
Ruffles, for women, of divers stuffs or silks	per dozen..	1 00
Rush-mats	each..	15
Revolvers	per pair..	9 00
Raisins, dried	per pound..	2
Razors:		
Fine, in their boxes or cases	per pair..	30
In packages or on cards	do....	20
Common, in packages or on cards	do....	06
Ratafia and cherry-brandy	per 12 bottles..	1 00
Ratafia and cherry-brandy	per 12 half-bottles..	50
Rakes, of iron	each..	12
Rulers	per dozen..	25
Rat-traps, of iron	do....	50
Regenerators, in bottles	per bottle..	25
Registers:		
Over 24 inches	each..	1 50
From 18 to 24 inches	do....	1 00
Under 18 inches	do....	30
Rules, for the game of billiards, on tables	per table..	40
Rulers, for officers, assorted, of wood	per dozen..	30

		Duties.
Reticules:		
Of silk, for ladies	each..	$0 16
Of stuff	do....	8
Rivets	per hundred pounds..	1 50
Rice	per hundred-weight..	75
Ribbons:		
Of satin, assorted	per piece of 12 ells..	12
Of silk, assorted	do....	9
Of black silk, for hemming and trimming shoes	per piece of 12 ells..	9
Wide, of every quality	per ell..	5
Of silk velvet	do....	2
Of silk, thread, or cotton	per 12 ells..	6
*Of wool, for mattresses	per piece of 12 ells..	1
*Of silk and cotton in pieces	do....	2
Rugs:		
Over 3 feet in length by 1 foot in width	each..	1 00
Under 3 feet in length by 1 foot in width	do....	50
Russian leather:		
Real, wide ⅛	per ell..	6
Real, above ⅛. (See article 24, third paragraph.)		
Real, narrow, below ⅛	per ell..	5
Imitation, wide, of ⅛	do....	4
Imitation, above ⅛. (See article 24, third paragraph.)		
Imitation, narrow, under ⅛	per ell..	3
Steel:		
In bars	per hundred-weight..	2 00
In plates	do....	2 50
Stills:		
Of brass, with neck and cover	each gallon..	12
Of brass, without neck and cover	do....	6
Of tin, for liquors and other purposes, from 10 to 12 gallons	each..	1 00
Slates:		
For scholars	per dozen..	6
For houses. Free of duty.		
Silver plate, fine, other than those tariffed	per pound..	2 00
Scales:		
Composed of waiters, beams, and iron chains, capable of weighing 10 hundred-weight and over	each..	2 00
As above, from 5 and under 10 hundred-weight	do....	1 00
Of one and under five hundred-weight	do....	50
Expensive, of gilded brass or silver-plated, with waiters, or mounted upon columns	each..	3 00
Ordinary, for stores, with plated waiters	do....	50
Ordinary, for stores, of tin	per dozen..	2 50
Roman style	each..	1 00
Stockings:		
Silk, for men and women	per dozen pair..	60
Silk, for children	do....	40
Of lisle thread, for women	do....	50
Of thread, for men	do....	50
*Of cotton, for men	do....	40
Woolen, for men	do....	50
*For children, cotton and woolen	do....	20
Sheepskins	per dozen..	50
Spits, with iron chains	each..	1 00
Sideboards:		
Of mahogany or choice woods	each..	7 00
Of ordinary woods	do....	3 00
Seals, of brass, for offices	per dozen..	30
Sofas:		
Of different woods, covered with hair stuffs, morocco or silk	each..	5 00
Of painted or varnished woods, with straw or cane bottoms, fine, gilt, or not gilt	each..	4 00
Of wood or straw, ordinary, with bottoms gilded or not	do....	2 00
Staffs, for drum-majors, with silver or silver-gilt handles	do....	4 00
Of brass	per pound..	12
Iron-plated, or of pinchbeck	each..	12

*Thus modified by the law of July 20, 1859.

		Duties.
Saucepans:		
Sashes, of ganze or muslin	per dozen..	$1 00
Sword-belts:		
For superior officers, with gold or silver lace, or embroidered on velvet	each..	4 00
Of buff (for swords)	per dozen..	75
Plated, with goldor silver thread	each..	3 00
Of morocco, embroidered	per dozen..	4 00
Of stamped leather	do....	2 50
Of varnished leather	do....	1 50
Of morocco or velvet, embroidered with gold	each..	25
Sword knots:		
Of gold or silver, for superior officers	each..	50
Of gold or silver imitation, for superior officers	do....	40
Of fine gold or silver, for inferior officers	do....	40
Of imitation gold or silver, for inferior officers	do....	20
Of silk	per dozen..	80
Of wool, thread, or cotton	do....	18
Swords:		
Mounted with fine silver, with copper scabbards	each..	2 00
Mounted with fine silver, with leather scabbards and silver-plated ferrules	each..	1 50
Mounted with gilt copper, or silver-plated, with copper-gilt scabbards, each		75
Mounted with gilt copper, or silver-plated, with leather scabbards and copper-gilt, or silver-plated ferrules	each..	75
Fine, for officers, with scabbards and hilts of gilt copper, or silver-plated, and with moldings and ornaments	each..	1 00
Same, without moldings or ornaments	do....	1 00
Ordinary, with scabbards and hilts of burnished brass, and plain	do....	50
Ordinary, with leather scabbards and ferrules of iron or leather	do....	40
Socks, or half hose:		
Of silk	per dozen..	50
Of woolen	do....	50
* Of thread or cotton	do....	20
* Of thread or cotton, for children	do....	10
Shabracks:		
Trimmed with gold	each...	5 00
Trimmed with silver	do....	3 00
Of fine cloth and other rich material	do....	1 50
Of common cloth and other material	do....	1 00
Shirts:		
For men, of cambric, lined or not	each..	50
For men, with stomacher of wool	do....	25
For men, with stomacher of cotton	do....	12
For men, of ordinary linen	per dozen..	4 00
For men, of common linen	do....	2 50
For soldiers and sailors, of wool, common linen, or ticking	do....	1 00
Shirts: Of cambric, muslin or fine calico, for men	per dozen..	3 00
Of cambric muslin or ordinary calico, common, for men's wear	do....	2 00
For men, of calico or cambric muslin, having linen fronts	do....	3 00
For children, of cambric or fine linen, embroidered or not	do....	3 00
For children, of ordinary linen	do....	2 00
For children, of ordinary calico and common	do....	1 00
Silk-twist: For shakos, with fine gold or silver	each..	2 00
For shakos, with imitation gold or silver	do....	1 00
For dresses	per 100 yards..	25
For shakos	per dozen..	1 75
Silk-velvet-twist for dresses	per ell..	1
Silk-fringe	do....	2
Silk-plush for hats	do....	12
Silk-velvet	do....	25
Silks: Silk cloth and other embroidered stuffs	per ell..	25
Gros of Naples, embroidered, plain or striped; satin, plain or with flowers, taffety and other stuffs of worked silk, for dresses	per ell..	20
Levantine, Florence, and light silks, and striped	do....	15
All of 30 inches and under; for silks above 30 inches (see article 24, third paragraph).		

* Thus modified by the law of July 20, 1859.

		Duties.
Silk watchguards	per dozen	$0 25
Silk lace: Wide	per ell	10
Narrow	do	6
Silver lace: Fine, over 18 lines	do	75
Fine, from 12 to 18 lines	do	40
Fine, under 12 lines	do	18
Sour-crout	per barrel	50
Sealing-wax, all colors	per pound	20
Scissors: For masons, joiners, &c	per dozen	20
For tailors, above 6 inches in size	do	20
For seamstress, of all sizes, fine	do	50
For seamstress, of all sizes, common	do	20
For cutting pasteboard	each	75
For cutting sheet-iron, tin, &c	do	1 00
Strings: For harp, assorted	per assortment	30
For violin, violoncello, or guitar, assorted, per roll or otherwise the 12 strings		5
Shoe-horns: Of bone	per dozen	30
Of brass	do	1 00
Slate-pencils	per thousand	50
Screw-jacks	each	75
Skins: Whipped, for hatters	per dozen	50
For hatters	do	50
Spoons:		
Of silver, with forks (see Fine silverware).		
Plated, with forks	per dozen	2 00
Plated, without forks	per dozen	1 00
For soup (ladle)	each	30
Of culin, common, with forks	per dozen	1 00
Of culin, common, without forks	do	50
Of culin, for soup (ladle)	each	20
* Of metal, of composition, not silver plated, with forks	per dozen	20
* Of metal, of composition, without forks	per dozen	10
* Of metal, of composition, for soup (ladle)	each	6
* For coffee, of pewter	per dozen	3
* Of wrought-iron or pewter, with forks	do	10
* Of wrought-iron or pewter, without forks	do	5
* Of wrought-iron or pewter, for soup (ladle)	each	3
And skimmers, of copper, for sugar-mills	per pound	4
For coffee, plated	per dozen	50
For coffee, of culin	do	30
Stoves, of iron, for vessels	per hundred-weight	75
Shirt-bosoms:		
Of fine linen and cambric, made up and embroidered	per dozen	1 50
Of ordinary linen and calico	do	75
Sugar-plums, of every sort	per pound	8
Seltzer water, and other mineral waters, in jars or in bottles	per dozen	30
Scarfs:		
For aides-de-camp, with large tassels	each	1 00
For aides-de-camp, with small tassels	do	75
Of silk and lace, for ladies	do	50
Spurs:		
Of gilt, copper, or silver-plated	per dozen pairs	2 00
Of iron, or blown copper, or plated	do	50
Of iron, or polished copper	do	50
Of iron, or rough copper	do	50
Sponges:		
Fine	per pound	35
Common, for horses	do	6
Squares:		
Of iron	each	6
Of wood	do	6
Spirits:		
Of wine	per gallon	50
Of turpentine	do	12
Of ether	flasks	6
Of semen-contra, in vials	per dozen	75

* Thus modified by the law of July 20, 1859.

		Duties.
Stirrups:		
Fine	per pair..	$0 30
Ordinary	do....	20
Common	per dozen pairs..	75
Stirrup-leathers	per dozen..	1 00
Snaffles	each..	10
Screw-augers, assorted	do....	20
Stoves, of iron and brass	do....	1 00
Steels, for sharpening knives	per dozen..	40
Sleeves (shoulder of mutton) detached from dress	per dozen..	1 50
Squittles (game of)	each set..	1 00
Stuffs for petticoats:		
Plain	each piece..	50
Embroidered	do....	1 00
Stuffed tongues	per dozen..	50
Spectacles:		
Mounted in gold	each..	1 00
Mounted in silver	do....	60
Of tortoise shell, mounted in gold	do....	50
Mounted in gilt, brass, or silver-plated	per dozen..	1 50
Mounted in iron	do....	50
Snuffers:		
With trays of sheet-iron	per dozen..	30
Without trays of sheet-iron	do....	16
Steam-mills, free of duty.		
Sheep (live), free of duty.		
Straw mats:		
Four-quarters wide and over, in pieces	per ell..	20
Under four-quarters wide, in pieces	do....	12
Shells (projectiles), free of duty.		
Spangles:		
Of fine gold or silver	per mark..	50
Of imitation gold or silver	do....	50
Slippers:		
Of wool, common	per dozen..	75
Of wool, fine, ordinary	do....	1 00
Of skin	do....	1 50
Sand-paper	per quire..	8
Shovels:		
Of iron	per dozen..	75
Of wood	do....	40
Salt-shovels	do....	40
Sugar-tongs	do....	50
Smoking-pipes:		
Of porcelain, mounted	each..	10
Of pottery	per gross..	24
Of clay	do....	10
Squared tin bar, pitch-pine	per thousand..	2 00
Shot	per pound..	4
Steel pens	per gross..	30
Stag hair	per hundred weight..	2 00
Scrapers for ships	per dozen..	50
Springs:		
For carriage wheels, 20 per cent. ad valorem.		
For watches, 20 per cent. ad valorem.		
Saltcellars:		
Of glass	per dozen..	25
Of metal of every sort	per pair..	25
Sanderach in small phials	per dozen..	50
Sardines:		
In barrels	per barrel..	50
In pots	pot..	20
In oil, in tin boxes	per box..	10
In oil, half in tin, boxes	per half box..	6
In oil, in quarter tin boxes	per quarter box..	4
Sauce, or "King sauce"	per dozen flasks..	3
Sausages:		
Preserved in lard	per pound..	4
Not preserved in lard	do....	4

		Duties.
Salmon:		
In barrels	per barrel..	$1 50
In half barrels	per half barrel..	75
In quarter barrels	per quarter barrel..	37
*Soap, of every quality	per hundred pounds..	1 00
Shakos:		
For officers, of beaver, velvet, or morocco, without hat-bands	each..	1 50
For troops, with plate, without hat-bands	per dozen..	3 00
Shawls:		
Of tulle, or fine thread lace, or cotton lace, and thread and silk, of 4-4 and over	each..	1 50
Of silks, of all sizes	do....	1 00
*Of white and colored cotton, of all sizes	per dozen..	1 00
*Of muslin, of every size	do....	1 50
*Of merino, of wool, and cotton	do....	3 00
Saws:		
Large and medium size, not mounted, assorted	per dozen..	2 00
Small, not mounted	do....	1 50
Large, mounted, assorted	do....	2 25
Small, mounted, assorted	do...	1 75
†Salt:		
In barrels	per barrel..	1 00
In small loaves, or in baskets	each..	5
Serge, of 30 inches and under	per ell..	16
Siamese cotton, of ⅛ to ¼, striped	do....	4
Saddles:		
Fine, for men, for superior officers, provided with holsters and laced saddle-cloth	each..	12 00
Ordinary, with or without saddle-cloth	do....	8 00
Without holsters or mountings	do....	6 00
For troops, with mountings and trappings	do....	3 00
Fine and ordinary, for ladies, mounted	do....	8 00
Ordinary, for ladies, mounted	do....	5 00
For men and ladies, of every quality, not mounted	do....	3 00
Sirups:		
Of orgeat, or other sort, in bottles	per dozen..	1 50
Of orgeat, or other sort, in vials	do....	75
Silk:		
For sewing and embroidering	per pound..	25
For shoemakers	do....	10
Shoes:		
Of knitted wool, called socks, for children	per dozen..	25
Fine, for men, glazed or of patent leather	do....	2 50
Ordinary, for men, glazed or of patent leather	do....	2 00
For boys	do....	2 00
For women, of silk, of fine colored leather or morocco	do....	2 00
For women, of prunella, or other stuffs, or of ordinary leather	do....	1 50
For babies, of every quality	do....	1 00
For little girls, of every quality	do....	1 50
Of India rubber	do....	2 00
Statues:		
Of plaster, 2 feet in height, and over	each..	75
Of plaster, of 12 to 23 inches in height	each..	37
Of plaster, under 12 inches	per dozen..	60
Of marble or bronze, 20 per cent. ad valorem.		
Statuettes, 20 per cent. ad valorem.		
Stereoscopes, 20 per cent. ad valorem.		
Sugar-candy, apple or barley	per pound..	3
Sugar, refined	do....	3
Sugar-basins, of glass or porcelain	per pair..	25
Snuff:		
‡Per pound		3
‡In bottles or flasks	per pound..	3
Snuff-boxes:		
Of gold, plain, or with music	per ounce..	1 00
Of tortoise-shell, ornamented with gold, fine	each..	80

*Thus modified by the law of July 20, 1859.
†Thus modified by the law of December 5, 1860.
‡Thus modified by law October 6, 1881, to take effect January 1, 1882.

		Duties.
Snuff-boxes:		
Of silver, fine	per marc..	$1 00
Of tortoise-shell, ornamented with fine silver	each..	60
Of wood or other material, with gilded bottoms	do....	40
Of pasteboard, fine	per dozen..	1 00
Of pasteboard, leather, or various woods, with horn bottoms, common, per dozen		30
Of pewter, lead, horn, common	per dozen..	20
With music, of tortoise-shell, wood, &c	each..	1 50
Sieves:		
For flour, mounted	per dozen..	1 00
For cane-juice, not mounted	do....	50
Sheet-iron	per hundred-weight..	75
Shoe-knives	per dozen..	15
Screws:		
Under 2 inches (small, of iron)	per gross..	06
Of iron, for beds	do....	75
Small, of copper	do....	50
Small, of iron	do....	40
Shades (for eyes), of leather	per dozen..	20
Sails, for ships, 20 per cent. ad valorem.		
Shuttles:		
Of pure silver	per marc..	50
Of gilt copper	per pair..	50
Spy-glasses:		
Two feet long when entirely extended	per dozen..	2 00
Under 2 feet long when entirely extended	do....	1 25
Sheep-skins, white or chamoised, dressed	do....	50
Sheathing:		
Of cedar, cypress, or pitch-pine	per thousand..	75
Of pine lumber	do....	40
Sirsacas, of 30 inches and under	per ell..	7
Scented waters:		
In bottles	each..	20
In phials or flasks	per dozen..	50
Saint George, of 30 inches and under	per ell..	3
Sance, of 30 inches and under	do....	3
Sacks, for inhabitants, of three to four threads	per dozen..	75
Timber:		
Squared, of pitch-pine	per thousand..	2 00
Squared, of pine	do....	1 75
Tinder-boxes:		
Phosphoric	each..	3
Of steel, for striking fire	per dozen..	10
Of infantry, for troops, free of duty.		
Tacks	per pound..	3
Tiles:		
Paving, of different styles and colors	per thousand..	1 00
Paving, of marble	do....	10 00
Paving, common, of 6 inches	do....	50
Paving (called Alotte stone)	do....	50
Thimbles, of bone, pure copper, or iron	per gross..	15
Turkeys (alive), free of duty.		
Tow	per hundredweight..	1 00
Tin plate:		
Double	per 100 plates..	2 00
Single	do....	1 00
Twine	per pound..	3
Ticking:		
Of 30 inches and under	per ell..	2
* Of every quality and imitation, cambray, under 24 inches	do....	1½
* Of every quality and imitation, cambray, from 24 to 30 inches	do....	2
* Of every quality and imitation, cambray, over 30 to 36 inches	do....	2½
* Of every quality and imitation, cambray, from 36 to 42 inches	do....	3
* Of every quality and imitation, cambray, from 42 inches and over	do....	3½
Time-pieces:		
With music, large	each..	8 00
Ordinary and common, of wood	do..	2 00
Of brass or bronze	do..	6 00

* Thus modified by the law of July 20, 1859.

		Duties.
Thread:		
White and colored, of Rennes, assorted	per pound..	$0 12
Cotton, colored, and assorted	do....	10
Cotton, white, for embroidering, in spools or balls	per 12 spools or balls..	2
Cotton, white and colored, in spools or balls	per pound..	6
In balls	do....	5
For sails; for making nets; for shoemakers	do....	3
Trimmings:		
Of fine gold or silver lace	per pair..	8
For dresses of tulle or lace, with b uquets or pearls, flowers, &c	each..	3 00
For muslin or gauze dresses, embroidered	per ell..	*
For same as above, called "entre-deux"	do...	5
Representing lightning, grenades, hunting horns of gold or silver, fine	per trimming..	40
Same as above, of imitation gold or silver	do....	40
For bridles	each..	50
For ladies' chemises, 20 per cent. ad valorem.		
Of silk, with frogs, for beds	each..	4 00
Of stuffs of every quality for beds	do..	2 00
Tassels:		
Of gold or silver, for boots or hats, in fringe	per pair..	30
Same as above, for superior officers	do....	60
Tar	per barrel..	75
Toys, 20 per cent. ad valorem.		
Trunks:		
Empty, large and small, in nests	each..	75
Containing imported goods	do....	25
Trousers:		
Of fine cloth, knitted kerseymere, silk	each..	1 50
Of fine linen, dimity, nankeen, nankinette, and other light stuffs	do....	50
Of deerskin or chamois	do....	1 00
Laced with gold	do....	2 50
Laced with silver	do....	2 00
Of osnaburg, or coarse cloth	per dozen..	1 50
Tweezers, for jewelers and shoemakers	do....	40
Trunk-handles:		
Of copper	per dozen pairs..	30
Of iron	do....	12
Tacks:		
Of copper	per pound..	9
Of iron assorted (French)	per pair..	6
Tufts:		
Of gold or silver for officers	per dozen..	2 50
Of silk or silver and silk	do....	75
Of wool	do....	25
Traveling-bags, of every quality	each..	25
Tooth-powder	per 12 boxes..	40
Tell-tales, of copper, ivory, or bone, when separate from mathematical boxes or cases	per dozen..	60
Tapes or measures	do....	12
Traveling writing-desks, of mahogany, of cedar, of boxwood, &c., fine and rich	each..	3 00
Transportable writing-desks, plain and common	do....	1 50
Tasters, of tin, for wine	per dozen..	50
Tallow	per pound..	1
Tobacco:		
*Twist	per pound..	8
*Leaf	do....	8
*Chewing of every sort	do....	8
Tables:		
Folding, of mahogany	each..	6 00
Folding, of other woods	do....	4 00
Ordinary, of walnut, cherry, or other woods	do....	2 00
Of pine	do....	1 00
Toilet tables, of mahogany or other rare woods	do....	3 00
Taffeta, imitation, of silk and cotton, of 30 inches and under	per ell..	10
Table-covers:		
Fine	each..	1 25
Ordinary and common	do....	75

*Thus modified by law of October 6, 1881, to take effect January 1, 1882.

		Duties.
Telescopes:		
Portable	each	$2 00
Large, 20 per cent. ad valorem.		
Thermometers:		
Over 12 inches in size	each	20
Under 12 inches in size	per dozen	60
Tiercons, empty, from 10 to 30 gallons	each	16
Tombs, *or marble monuments*, of every dimension	do	6 00
Trumpets	do	75
Trowels, for masons	per dozen	50
Tiling	per thousand	1 00
Tiger-skins	each	1 00
Tulips:		
Of gold, for hats	each	25
Of silver, for shakos	do	20
For hats of gilt, brass, or silver plated	per dozen	1 50
Of burnished leather	do	30
Table-cloths:		
Fine, damask, wide, striped, for 24 plates and over	each	75
Ordinary, plain, with bars, brown	do	20
Of cotton, fine and wide	do	30
Common and narrow	do	10
Thimbles:		
For sailmakers and tailors	per dozen	6
Tallow-candles	per pound	2
Trimmings for locks:		
Of brass, for wardrobes	per pair	4
Of iron, for wardrobes	do	2
Of bone or mother of pearl, for wardrobes	do	6
Treble-milled cotton or woolen, of 30 inches and wider	per ell	7
Umbrellas:		
* Sunshades, parasols of every size and shape	each	60
* Sunshades, parasols for children	do	20
* Of woolen stuffs	do	30
* Of cotton	do	18
Vamps:		
For shoes	per dozen pairs	1 00
Vermouth:		
In cases or baskets of 12 bottles	each	50
In liters	per 12 liters	75
Vials:		
Empty, large	per hundred	50
Empty, small	do	40
Empty, covered with leather	per dozen	50
Varnish:		
In bottles	per bottle	12
Verdigris	per pound	06
Vests:		
Made of cloth, of every quality	each	3 00
Made of light stuffs, of every quality	do	1 00
Vinegar:		
In various casks	per gallon	2
In demijohns	each	12
In bottles	per dozen	8
Violins or violincellos:		
Fine, with cases	each	50
Common and ordinary, without cases	do	50
Vitriol	per pound	6
Veils:		
Of lace, tulle or silk	each	2 00
Of gauze or muslin	do	50
Of cotton lace	do	1 50
Watering-pots:		
Of tin	each	25
Of brass	do	50
Of sheet iron	do	25
White lead and whiting	per barrel	35

* Thus modified by the law of July 20, 1859.

		Duties.
White enamel for ladies	per pot..	$0 20
Wheelbarrows	each..	75
Wagons:		
Four wheel, large	each..	3 00
Medium size	do....	2 00
Walking-sticks:		
Of malacca, ornamented with gold	do....	2 50
Of malacca, ornamented with silver	do....	1 00
Of malacca, ornamented with tortoise shell	per dozen..	3 00
Of malacca, cocoanut, imitation, or bone	do....	1 50
Of common wood, varnished	do....	1 00
Of iron	do....	1 00
Wire ribbon:		
Of gold, or of silver, fine	per ounce..	20
Of gold, or of silver, false	do....	10
Wax tapers	pound..	5
Wax works, 20 per cent. ad valorem.		
Watch-keys:		
Of brass	per dozen..	12
With false stones, mounted on brass	do....	1 00
Wreaths, embroidered in gold, 20 per cent. ad valorem.		
Whips:		
Of whalebone	per dozen..	2 00
Of wood	do....	1 00
Window-fastenings of iron, small	do....	37
Woven stuffs:		
Woolen, for trousers, thread or cotton 4-4	per ell..	12
Woolen, same as above, under 4-4	do....	8
Woolen thread or cotton, or pure cotton, plain or striped, of 4-4	do....	6
Woolen, for trousers, same as above, under 4-4	do....	5
Woolen, for trousers, of 26 inches and under	do....	4
Wire, brass or iron	per pound..	8
Woolen lace:		
Wide	per ell..	5
Narrow	do....	3
Waistcoats:		
Of fine cloth, with sleeves	each..	2 00
Of light stuffs	per dozen..	3 00
Of kerseymere, silk cloth, or other stitched stuffs	do....	6 00
Of light stuffs	do....	3 00
With gold or silver lace	each..	2 00
Wool, raw	per pound..	4
Wooden laths	per thousand..	75
Watches:		
Gold, of every quality	each..	1 50
Silver, of every quality	do....	75
Brass, of every quality	do....	50
Wafers	per pound..	12
Wigs	each..	1 00
Water-casks:		
With wooden hoops	per each gallon..	1
With iron hoops	do....	2
Waiters:		
For tea service, painted, gilded or not, of 1 foot and above in diameter, each		75
Same, under 1 foot	per dozen..	2 00
Of metal, for decanters	each..	1 50
Of straw	do....	50
Silver-plated, and those of silver, 20 per cent. ad valorem.		
Wicks, for lamps	per gross..	12
Whity brown or cut pasteboard	per dozen..	12
Weights:		
For scales, for copper	per hundred-weight..	9 00
For scales, of iron	do....	1 00
Watch-pockets:		
Of silk, embroidered	per dozen..	1 00
Plain	do....	50
Of stuff	do....	25
Wash-balls	do....	16

Wines:		
Red and white, in hogsheads	per hogshead of 60 gallons	$3 00
Red and white, in cases of 12 bottles	per case	50
Of Madeira, Teneriffe, Malaga, Bruntez, Muscat, the Cape of Good Hope, in hogsheads	per gallon	12
Of Champagne, Port, Rhine, in cases of 12 bottles	per case	50
Of Muscat, Malmsey, and other dessert wines, in cases of 12 bottles, per case		50
White or colored of Marseilles, commonly known as Madeira style, in casks, per gallon		12
Window-glass, 20 per cent. ad valorem.		
Whisky:		
In caskes of not less than 60 gallons	per gallon	50
In caskes of 12 flasks	per case	1 00
In jugs of a pint and a half	per 12 jugs	1 00
Wimbles:		
With augers, assorted	per dozen	1 00
Without augers	do	50
Zinc: In sheets and nails	per pound	02

Tariff No. 2.—DUTIES ON EXPORTS.

Mahogany	per M feet	3 00
Fustic or yellow wood	do	1 00
Guaiac	per 1,000 pounds	10
*Logwood	do	1 50
Dye-woods of every sort (except logwood)	do	1 00
Cocoa	per 100 pounds	1 50
Coffee	do	2 50
†Cotton	do	10
Hides	per pound	2
Wax	per 10 pounds	50
Tortoise-shell	per pound	02
Pith, in fiber	per 1,000 pounds	3 00
Honey	per gallon	4

Tariff No. 3.—WHARFAGE DUES.

Steel	per hundred-weight	6
Garlic:		
In bulk	per hundred-weight	4
In bunches	per 100 bunches	50
Stills, with their accessories	each	2 00
Anchors of ships or for throwing overboard	per hundred-weight	6
Slates, in cases	per case	25
Wardrobes	each	1 00
Oars	per dozen	6
Chests	per nest	12
Baths:		
Of brass or tin	each	50
Or half-baths of brass or tin	do	25
Of wood, or large pails	do	4
Scales:		
Large	do	50
With columns	do	6
For shops	per dozen	12
Bales:		
In chests	per nest	12
Of dry goods, of 2 feet and over	each	25
Of dry goods, under 2 feet	do	12
Barrels:		
Of the size of a flour-barrel	do	12
Half of above size	do	6
Casks:		
Full, of 55 to 60 gallons	do	25
Full, and over 60 gallons	do	50
Empty, of 55 to 60 gallons	do	4
Empty, over 60 gallons	do	8

*Thus modified by law of December 15, 1880.
†Thus modified by law of October 6, 1881, to take effect January 1, 1882.

		Duties.
Butter, in firkins	per hundred..	$ 12
Beer, in tierces	each..	18
Billiards	do....	2 00
Biscuits:		
In barrels	do....	12
In half-barrels	do....	6
In sacks	per hundred-weight..	6
In small barrels or firkins	each..	4
Smoked beef	per hundred-weight..	12
Mahogany	per 1,000 feet, reduced, national money..	2 00
Yellow wood or fustic	per 1,000 pounds..	50
Guacum wood, Brazil wood	do....	50
Squared timber, pitch-pine, pine	do....	50
Hogsheads (one in another)	each..	6
Hogsheads, full. (See articles therein contained).		
Bricks	per thousand..	50
Wheelbarrows	each..	6
Sideboards	do....	1 00
Bureaus, writing-desks, &c	do....	1 00
Cabs. (See Carriages).		
Wagons, large and medium size	each..	50
Cocoa, per thousand, national money		50
Cases of provisions, selling per pound, per hundred, or per hundred-weight	..	12
Boxes of smoked herrings	each..	4
Boxes of dry-goods, of 2 feet and over	do....	25
Boxes of dry goods, under 2 feet	do....	12
Logwood, per thousand, national money		50
Sofas, divers	each..	25
Marble tiles	per thousand..	2 00
Barsac tiles	per armful..	25
Alotte tiles, and large stones for building purposes	per dozen..	25
Tiles, ordinary	per thousand..	50
Coaches. (See Carriages.)		
Caskets	per nest..	12
Chairs, divers	per dozen..	1 00
Hats	per hogshead or case..	50
Heads for stills, detached	each..	30
Candles, in cases	per hundred-weight..	12
Coal	per hogshead..	50
Carryalls. (See Carriages.)		
Boilers, for sugar	each..	25
Boilers, of casting	per hundred weight..	12
Bells, of iron, casting, or copper	do....	12
Nails, of every quality	do....	12
Smoked pork	do....	12
Chest of drawers	each..	1 00
Ropes, divers	per hundred-weight..	12
Cotton	per thousand, national money..	50
Couleuvres for alambics, detached	each..	30
Cowhides, salted	per 100 hides, national money..	50
Copper	per hundred-weight..	6
Demijohns, of all sizes, full or empty	each..	2
Half-barrels, in general, the size of half barrel of flour	do....	6
Digdales, full or empty	do....	2
Sugar-plums, in cases of 12 bottles, or 12 flasks, or 30 phials	per case..	6
Sugar-plums, in double cases	do....	12
Brandy (same duty as on gin and on whisky).		
Sifters. (See Sieves.)		
Eschalots:		
In bulk	per hundred-weight..	4
In bunches	per 100 bunches..	50
Anvils	each..	25
Spars	do....	6
Pewter	per hundred-weight..	6
Vices	each..	12
Sheathing, divers	per thousand..	50
Crockery:		
In hogsheads	per hogshead..	50
In baskets	per basket..	36

		Duties.
Crockery:		
In crates	each..	$0 36
In large cases	do....	36
In hampers or half baskets	do....	18
Flour, wheat or rye	per barrel..	12
Do	per half barrel..	6
Iron in bars, pig or sheet	per hundred-weight..	6
Old iron	per hogshead..	50
Iron tools	per tierce..	18
Iron tools, not boxed	per hundred-weight..	6
Hoop-iron	do....	6
Hoop-wood	per thousand..	50
Fountains	each..	12
Sugar-molds	per dozen..	12
Firkins. (See articles therein contained.)		
Cheese	per hundred-weight..	12
Brandied fruits:		
Per case of 12 bottles, 12 flasks, or 30 phials	each..	6
In double cases	per case..	12
Gin:		
In casks of 60 gallons	each cask..	25
In casks of more than 60 gallons	do....	50
In jugs or in cases, the case or 12 jugs		6
Graplings	per hundred-weight..	6
Harps	each..	1 00
Clocks:		
Large	each..	1 00
For kitchens and ante-rooms	do....	25
Oil:		
In cases of 12 bottles, 12 flasks, or 30 vials	do....	6
In double cases	do....	12
In jugs	do....	2
In cases of 12 flasks	do....	4
In firkins	do....	4
Hams, not boxed	per hundred-weight..	12
Jugs, assorted	each..	12
Beef tongues, cured, not boxed	do....	12
Bacon, not boxed	per hundred-weight..	12
Laths	each..	50
Liquors:		
Of all qualities, in cases of 12 bottles, 12 flasks, or 30 vials	each..	60
Same, in double cases	do....	12
In demijohns, in ancres of 8 gallons	do....	6
In demijohns, in ancres of 4 gallons and less	do....	3
Beds, divers	do....	1 00
Madeira, in barrels of 55 to 60 gallons	do....	25
Corn:		
In grain or in meal	per barrel..	12
In grain or in meal	per half barrel..	6
Trunks of dry goods:		
Of 2 feet and over	each..	25
Under 2 feet	do....	12
Lard in firkins	per hundred-weight..	12
Merchandise in general, selling by the pound, the hundred, and the thousand, per hundred		12
Mattresses, by the cargo	each..	12
Clapboards	per thousand..	50
Grindstones, assorted	per dozen..	1 00
Mortars:		
Of iron or brass, for apothecaries	each..	12
Of marble, assorted	per dozen..	25
Codfish and dry salt cod:		
In hogsheads	per hogshead..	50
In tierces	per tierce..	18
Steam-mills for sugar refineries	each..	1 00
Mills:		
For winnowing and cleaning coffee	do....	1 00
For seeding and combing cotton	do....	1 00
For tobacco	do....	25
For corn, not encased	do....	4

		Duties.
Wicker mats	per dozen..	$0 12
Onions:		
In bulk	per hundred-weight..	4
In bunches	per 100 bunches..	50
Organs	each..	25
Osier	per 100 handfuls..	12
Baskets of osier, empty, assorted	per dozen..	12
Skins:		
Various, loose, large	do....	12
Various, loose, small, kid, goat, sheep and hog	do....	6
Paints, in pots	per hundred-weight..	12
Spades	per dozen..	6
Pianos	each..	1 00
Puncheons for water and rum:		
Of 55 to 60 gallons	do....	25
Above 60 gallons	do....	50
Stones. (See Tiles.)		
Crowbars and pick-axes	per hundred-weight..	6
Pith	per thousand pounds..	50
Lead, in pig or in leaf	per hundred-weight..	6
Stoves and small stoves, not boxed	per dozen..	6
Weights, in iron or copper, for balances	per hundred-weight..	6
Beans of all sorts	per barrel..	12
Do	per half barrel..	6
Fire-engines	each..	1 00
Pumps:		
For ships	do....	25
For wells and hand-pumps	do....	12
Presses:		
Hydraulic	do....	1 00
For printing	do....	1 00
For copying, not boxed	do....	25
For binding, not boxed	do....	25
For stamping, not boxed	do....	12
Provisions in cases. (See Cases.)		
Pulleys, assorted, not boxed	per dozen..	6
Quitterines. (See Carriages.)		
Rice, in hogsheads, tierces, half-tierces, and in bags	per hundred-weight	12
Wheels:		
Of wagons, detached	per pair..	40
Of carriages	do....	25
Rolls. (See Linen drapery.)		
Sacks, empty, not packed	per hundred..	25
Salt provisions	per tierce..	18
Do	per barrel..	12
Do	do....	6
Provisions, in firkins or cases of 12 flasks		4
Soap, in cases	per hundred-weight..	12
Writing-desks, portable, of mahogany or other wood	each..	4
Bird-organs	do....	4
Forge-bellows, not packed	do....	25
Butchers' bellows, not packed	per hundred-weight..	12
Tobacco, in twist, not packed	do....	12
Tables, of every kind	each..	12
Sifters, of wool or pewter	per dozen..	25
Earthenware:		
In hogsheads	each..	50
In baskets or crates	do....	36
In bulk	per 100 pieces..	1 00
Tierces. (See articles therein contained.)		
Linen drapery	per hogshead..	50
Do	per tierce..	18
Drapery, such as colette, wrapper, and other, not packed	per roll..	4
Sheet iron	per hundred-weight..	6
Rubbish-carts	each..	1 00
Backgammon-boards	do....	25
Files	per thousand..	50
Vermicelli, macaroni, and other pastes, in cases or baskets	per hund.-weight..	12

		Duties.
Wine:		
In barrels of 55 to 60 gallons	each..	$0 25
In barrels of more than 60 gallons	do....	50
In tierces	do....	18
In cases of 12 bottles, 12 flasks, or 30 vials	do....	6
In double cases	do....	12
Vinegar:		
In barrels of 55 to 60 gallons	per barrel..	25
In demijohns of 4 gallons	each..	6
In demijohns of less than 4 gallons	do....	3
In jars	per jar..	4
In cases of 12 flasks	per case..	4
Carriages:		
Coaches, calèeches, cabs, quitterines, carryalls, and tilburys	each..	2 00
For children, on springs	do....	25
Whisky:		
In casks of 60 gallons	each..	25
In cases of more than 60 gallons	do....	50
In cases or jugs	the case or 12 jugs..	6
Zinc in sheets, and nails	per hundred-weight..	6

TARIFF NO. 4.—DUTIES OF WEIGHING.

The duties of weighing, for imports, shall be collected upon all merchandise which is sold by the pound, the hundred-weight, or the ton, whatever may be the designation of said merchandise, at the rate of fifty cents per each thousand, to wit, $0.50.

TARIFF NO. 5.—FOUNTAIN DUTIES.

Fountain dues, where there is a fountain for the accommodation of vessels of commerce:

For each vessel of 15 to 50 tons	$2 00
For each vessel of 51 to 100 tons	3 00
For each vessel of 101 to 150 tons	4 50
For each vessel of 151 to 250 tons	6 00
For each vessel of 251 to 300 tons	7 50
For each vessel above 300 tons	10 00

MODIFICATIONS OF TARIFF.

NOTES.

Where merchandise is of finer quality and larger size than that designated in the tariff, duty shall be charged in such manner as to accord with its quality or size, proportioned to the duty fixed by the tariff. (Article 24, third paragraph of the law of July 1, 1871.)

A surtax of fifty per cent. upon the established duties upon imports; of weighing; and of wharfage; of imports, and upon the established duty of tonnage is collected and credited to the Caisse of Amortissement. (Law of November 17, 1876.)

A surtax of twenty per cent. upon exports is collected and credited to the Caisse of Amortissement. (Law of November 17, 1876.)

NOTES.

The British Indian Tariff.—The Department of State has received a report from Consul-General Mattson, of Calcutta, dated March 13, 1882, relative to a very important proposed change in the laws bearing on customs duties on goods imported into British India. The financial budget for 1882–'83, introduced March 8 in the legislative council by the minister of finances, proposes, among other things, "the total abolition of cotton and general import duties," leaving only special duties in force, to wit, those on wine, beer, spirits, liquors, arms, ammunition, salt, and opium.

The motion to effect this great change has been formally made, and is at present being debated in the council. Its passage by an almost unanimous vote is only a question of a few days, so that, practically, it may be said that British India is open for free trade with only the few exceptions mentioned.

Coffee of Brazil.—The Department has advice from Minister Osborn of a proposed reduction of the Brazilian export tax upon coffee to 3 per cent. The bill providing for this reduction has, so far, only been presented in the Brazilian senate, but is well supported and promises success. The present export duty on coffee is 9 per cent., and the provinces require 4 per cent., making a total of 13 per cent. tax.

Such a reduction would be of great interest to our importers of Brazilian coffee and affect our market very sensitively. Minister Osborn adds:

> The necessities of the government may, perhaps, interfere with its immediate adoption, but it is confidently hoped that other sources may soon be found from which the needed revenues may be secured.

Coffee of Hayti.—From Consul Goutier, of Cape Haytien, the Department has been advised of a poor crop of coffee for the last quarter of 1881. The decline in the price of coffee, at the same time, has seriously affected the agriculturists and embarrassed the merchants. The consul writes that—

> There has been no rain in this section of the country to benefit agriculture for the last five months. The grass is parched, and the cattle are suffering for want of water. The yield of the coffee crop has been poor, and the decline in the price of the principal staple commodities of Hayti has not only affected the government, but, more or less, all classes of the community. The export duty on coffee is $3 per hundred pounds. Consequently the government is deprived of a large portion of its revenue.

The shortness of crop also necessitates remittance by exchange at 15 per cent. premium, and shipping silver at a depreciated figure; viz, 80 to 82 cents per 100.

In view of this condition of affairs, the prospect of a reciprocal trade between the United States and Hayti during the coming season is by no means promising.

The total value of the imports from the United States for the year ending 1881 was $224,898.91, and of the exports thereto, $291,661.11.

Quicksilver in Hong-Kong.—The following is a summary of present condition of quicksilver market of Hong-Kong, as reported by Consul-Mosby, viz:

Estimated stock on hand, 5,500 flasks.

Imported during 1879, 33,676 flasks, at $50 to $65 per picul.

Imported during 1880, 22,009 flasks, at $56.25 to $63.50 per picul.
Imported during 1881, 14,010 flasks, at $56.75 to $59 per picul.
There is occasional trade in this article between Chinese and sometimes Japanese ports, but very little export trade.

The consumption per month at Hong-Kong is estimated at about 1,600 flasks in the manufacture of vermilion. Prices are governed by speculative transactions, and consequently unsteady, at one time being run up as high as $100 per picul.

Vintage of France, 1881.—Consul Peixotto reports to the Department an improvement in the yield of the French vintage of last year over that of the previous year, and adds that—

The statistical table of the month of December, which the minister of finance has just completed, states that the wine produce amounted to 34,138,715 hectoliters. In 1880 there was but 29,677,472 hectoliters, being an increase for 1881 of 4,461,243 hectoliters.

This augmentation was due to the central and eastern departments, the south being still subject to phylloxera. In the department afflicted by the plague the destruction which, in 1880, was 37,000 hectares, extended in 1881 to more than 100,000 hectares.

Stock in Austria.—The cattle census of 1880, and just published in Austria, is reported by Mr. Delaplaine, secretary of the United States legation, as follows, in comparison with the returns of 1869:

Stock.	1869.	1880.
Horned cattle	7,425,212	8,584,077
Horses	1,389,623	1,463,382
Mules	43,070	49,618
Goats	979,104	1,006,675
Swine	2,551,473	2,721,541
Sheep	5,026,398	3,841,340

Showing an increase of over 15 per cent. in horned cattle, about 5 per cent. in horses, and the same ratio in mules, less than 3 per cent. in goats, and about 6 per cent. in swine, and a diminution of over 23 per cent. in sheep.

Cotton movement at the port of Barcelona.—The Department is advised by Consul Schenck, of that port, that there was an increase in the cotton trade of last year. The receipts of 1880 were 205,953 bales, and of 1881 214,913 bales, showing an increase of 8,960 bales.

The countries from which Spain purchases raw cotton are illustrated proportionately by the following exhibit of Barcelona, viz:

Countries.	1880.	1881.
	Bales.	*Bales.*
The United States	123,928	119,099
Brazil	18,965	24,635
The West Indies	200	.....
The East Indies	33,200	7,100
Levant, and indirect	29,660	64,079
Total	205,953	214,913

Thus it will be seen that there has been a falling off in the United States staple, and the increase has been Brazilian and eastern product.

Steam communication between Amsterdam and New York.—Consul Eckstein, under date of February 22, 1882, reports that—

The largest steamers, said to be four of them, of about 3,500 tons registered measurement each, of the Netherlandish-American Steamship Company, which have hitherto been plying between Rotterdam and New York, will hereafter call at and leave Amsterdam instead.

It is already announced that the steamer Amsterdam, one of their line, which is to sail on the 4th proximo, will come to this port on its return. The company has had this change in contemplation for some time, as I understand, and is now compelled to undertake it in order to obviate in future the necessity of navigating the waterway from Rotterdam to the sea, which, it seems, is becoming more and more defective.

These steamers on their outward trips, with large numbers of passengers aboard, could carry only half cargoes, and on their inward trips, with few passengers and full cargoes, were hitherto obliged to discharge part of their cargoes on to lighters either at Hellevoetsluis or Brouwershaven ere they could come up to Rotterdam.

INDEX.

A.

Page.

Acid: boracic, production of, in Italy 551
Advancement of American export trade:
in coal-tar pitch 478
in timber 479
in quicksilver 502
chance for, in Cape Town 574
in coal 577
in tobacco 585-590
in general products 601
Africa: trade of, with Austria 538
and commerce of the Cape of Good Hope 573
Agents in the Orient for advancing trade 537
Agricultural: American, products in Belgian markets 483
American, products, speculation in 493
Austrian, fruits exported 496
Russian, products 549
Japanese, primitive character of 565
American, implements wanted in Cape Town 574
American, products in Malta 586
Alcohol: American, in Malta 586
Almeden. (*See also* Spain.)
production of quicksilver in 501
Amsterdam. (*See also* Holland.)
proposed steamship line to, from New York 646
Antwerp. (*See also* Belgium.)
American products in 483
American: coal-tar pitch wanted 478
timber trade at Liverpool 479
interest in Dutch claims 482
products and prices in Belgium 483
pork in France 486
securities in Holland 487
railroad bonds, prices in Holland 489
trade with San Domingo 491
shipping in Indian Ocean 492
grain speculation, effects in Europe 493
exports to Mayence 494
imports from Austria 495
tariff rates compared 496
trade with Messina 498
and British shipping compared 499
quicksilver in Europe 501
canned meats in Germany 505
import of linens from Great Britain 511

		Page.
America:	woolen manufactures, rapid growth of	513
	buyers of wool in Australasia	524
	duties on New Zealand wool	525
	starch considered with that of Argentine Republic	529
	clocks and watches in New Zealand	530
	trade with the Orient	540
	British and Canadian trade in foreign markets	572
	immigrants, tobacco manufacturers	582
	products in Malta	585
	flag, one, seen at Malta in 1881	587
	tobacco in the Netherlands	590
	products	601
	agricultural implements in Cape Town	574
Areas:	of Europe, allotted to flax cultivation	506
Argentine Republic:	the manufacture of starch	529
Archangel:	as a Roman timber port	566
Asia:	Russian trade with	556
Atlantic and Pacific Railroad:	bonds in Holland	488
Auckland. (*See* New Zealand.)		
Australasia:	wools of	518
	Canterbury wool	528
	watch and clock trade in	530
Austria:	exports from, to the United States	495
	trade of, with the Orient	535
	stock in	645

B.

Bacon. (*See* Pork.)		
Barcelona. (*See* Spain.)		
Belfast. (*See* British.)		
Belgium:	markets for American products	483
Births:	in Germany	698
Bonds. (*See* Finance.)		
Borax:	and boracic acid, production of, in Italy	551
Bordeaux. (*See* France.)		
Boston and New York:	freight rates to New Zeland	524
Brazilian:	coffee, export tax of	644
British:	returns of timber trade	479
	woolen industry of Bradford	511
	potteries of Staffordshire	541
	trade returns	561
	steamships at Malta	587
	Indian tariff, change in	644
Buenos Ayres (*see* Argentine Republic)		530
Bullion. (*See* Gold.)		
Burgundy:	wine trade of	602
Butter:	large trade in Norwegian, in India and China	536
	import of, in Malta	586

C.

Calcutta. (*See* India.)		
California:	wheat in Europe	483
	quicksilver in Europe	501

	Page.
Canadian: exports	496
cotton industry	571
Canterbury. (*See* New Zealand.)	
Canned meats: in Germany	505
Carriages: market for, in Cape Town	574
Cape of Good Hope: wools of	516
trade and commerce of	578
Cattle: of Austria, census of 1880	645
Cedar (*see* Timber): import of, into Great Britain	480
Cheese: no American, in Malta	586
Chicago and Atlantic Railroad: bonds in Holland	488
China: camel; hair of	517
Austrian trade with	535
Norwegian butter in	536
Trade of New Chwang	569
Claims: inheritance in Holland	482
Clock and watch: trade of New Zealand	536
American, wanted in Cape Town	574
cost of, in Wales	478
Coal: dust utilized	477
tar pitch wanted	478
imports of Italy	577
Coaticook. (*See* Canada.)	
Codfish: import of, in Malta	586
Coffee: Brazilian, export tar of	644
Haytian, failure of crop	644
Cologne. (*See* Germany.)	
Commerce: American, with Belgium	483
American, with San Domingo	491
Austrian, with the Orient	535
Russian, with Finland	548
of New Chwang, China	569
of the Cape of Good Hope	573
of Malta	583
Consular reports: upon trade, good effect of	540
value of	601
Consuls-general, consuls, and commercial agents:	
Atwater, report by	600
Baker, report by	529
Bandinel, report by	569
Blodgett, report by	496
Bullock, report by	579
Canisius, report by	499, 504
Carroll, report by	497
Catlin	593
Cram, report by	577
Crawford, report by	571
Eckstein, report by	482, 487, 589
Eynaud, report by	583
Gifford, report by	477, 478
Griffin, report by	522, 530
Grinnell, report by	556
Jones (Paul), report by	491
Jones (A. C.), report by	565
Lane, report by	541

Page.
Consuls-general, consuls, and commercial agents—Continued.
Langston, translation of tariff by 604
Leonard, report by 553
Mattson, report by 492
Owen, report by 498
Packard, report by 479
Peixotto, report by 527, 602
Preller, report by 588
Rhodes, report by 486, 592
Rice, report by 551
Roosevelt, report by 574
Shaw, report by 561
Shepard, report by 513
Siler, report by 573
Smith, report by 493, 494, 578
Spackman, report by 603
Stanton, report by 544, 548
Stewart, report by 483
Taylor, report by 596
Thayer, report by 535
Vogeler, report by 501, 556, 59
Wamer, report by 559
Weaver, report by 495
Wharton, report by 601
Wood, report by 506
Consumption: of American products in Belgium 483
of Russian goods 545
of coal in Italy 577
local, of Malta 588
Cows: American, in Europe 483
in Malta 586
Cost. (*See* also Prices.)
of manufacturing patent fuel 478
of living .....
of ship-building at Leith 555
of living in Dusseldorf 559
of cultivating rice in Japan 568
of cultivating in Germany 582
of living in Southern France 596
Cotton: mixed with silk in Lyons 527
shirting in the Orient 537
fabrics, imported and exported at Triest 539
manufactures and trade of Great Britain 562
trade of New Chwang, China 569
industries of Canada 571
spinning in Germany 603
movement in port of Barcelona 645

D.

Department of State: instructions of, for reports from consuls 477
good effect of consular reports 540
Des Moines and Fort Dodge Railroad: bonds in Holland 488
Diamond: mining at Cape Town 573
Dutch. (*See* Holland,)
Duties. (*See* Tariff.)

E.

	Page.
Eggs: in Canada, trade of	497
Emigration: statistics of Germany	556
effects of, in Germany	580
from Würtemberg to the United States	593
Exchange: rates of, in Holland	491
Exports: of American timber to Great Britain	479
products to Belgium	483
San Domingo	491
Mayence	494
of Austria to the United States	495
of Canada to the United States	496
of American products to Italy	498
of quicksilver from Germany	503
of flax cordilla, &c., from Germany	508
of linens from Great Britain	509
of wool from New Zealand	526
of American starch to the Argentine Republic	529
watches	532
from Austria-Hungary	530
Russia	549
Great Britain, principal articles	562
New Chwang, China	570
of the Cape of Good Hope	573
of Malta, principal articles	587

F.

Fabrics: linen, manufactures and trade	511
woolen, manufactures and trade	513
manufacture of, in Italy	552
cotton, manufacture and trade	562
Farmer. (*See also* Agriculture.)	
of Japan	565
Feathers: product of, in Cape Town	573
Finance: inheritance claims in Holland	482
American securities in Holland	487
gold and silver movement in Great Britain	564
Finland: trade of, with Russia	546, 550
Fish: sardine trade of Bordeaux	574
cod, imports of, in Malta	586
Flax: and linen industries of Europe	506
Flour. (*See* Wheat).	
Food. (*See* Prices).	
France: Reports from consul at Nantes	477, 479
Manufacture of patent fuel in	477
American pork in	486
silk products of Lyons, 1880 and 1881	527
sardine trade of	574
Rouen as a seaport	592
Frankfort-on-the-Main. (See German.)	
Freights: on coal from Wales to France	478
fall in, from New York to Europe	534
high rates of, to Italy	499
rates on New Zealand wool	523
Fuel: Patent manufacture of	477

G.

Page.

German: tests in petroleum 556
emigration statistics, 1871 to 1881 556
wages and food prices 559
iron trade in 578
trade and industries 579
Glass: manufacture of, in Russia 545
Glue: manufacture of, in Russia 545
Gold: quotations in Holland 489
imports and exports of, in Great Britain 564
Good Hope: wools of the Cape of 516
Cape of, trade of 573
Grain: speculation in, bad effects of 493

H.

Hams: (*See* also Pork.) Coverings for 504
Harbor: of Rio Grande do Sul 589
Rouen as a seaport 592
Haytien: tariff rates 604
coffee, failure of crop 644
Holland: inheritance claims in 482
American securities in 487
tobacco trade of 589
steamship line, from, to New York 646
Hong Kong: quicksilver of 644
Horses: of Austria, census of 1880 645

I.

Imports: of American timber into Great Britain 479
products into Belgium 483
pork into France 486
products into San Domingo 491
products into Mayence 494
of Austrian products into the United States 495
of Canadian products into the United States 496
of American products into Italy 498
of quicksilver into Germany 503
of flax-seed into Ireland 507
of flax cordilla, &c., into the United Kingdom 508
of linens into Great Britain 511
of wool into the United States 525
of starch into the Argentine Republic from the United States 529
of American watches into New Zealand 532
of sundry staples into Austria 539
of Russia from Asia 550
of Great Britain, principal articles 562
of the Cape of Good Hope 573
of coal into Italy 577
India: British shipping in waters of 492
changes in tariff of 644
Industries: linen, of Great Britain 511
woolen, of Great Britain, origin of 513
encouragement to the ship-building, of Austria 535, 538, 539

Page.
Industries: pottery, of Staffordshire 541
manufacturing, of Russia 544
ship-building, at Leith 554
wages paid in the, of Germany 559
cotton, of Canada 571
diamond and feather production in Cape Town 573
sardine, of Bordeaux 574
iron, of Europe 578
trade, of Germany 579
the sugar, of Germany 581
Ink: trade, of Russia 545
Ireland. (*See* British.)
Iron: ore, tariff rate in Canada 497
industries, of Europe 578
trade, of Germany 580
Italian: production of boracic acid 551
import of coal 577

J.

Japan: rice culture and cleaning in 564
Java: tobacco crop of 591

K.

Kentucky tobacco: in the Netherlands 591

L.

Labor: (*See also* Prices.)
wages in British potteries 543
manufacturing industries of Russia 548
ship-building at Leith 555
wages in Germany 559
wages in Japan 566
wages in Japan 582
Lard: American, in Belgium 484
import of, in Malta 586
Lead: pencil manufactures of Russia 545
Leather: manufactures of Russia 545
Leith: ship-building at 553
Linen: and flax industries of Europe 506
Lines, steamship. (*See* Steamship.)
Lime: production of, in Russia 545
Living: (*See also* Labor.) Cost of, in Southern France 596
Looms: flax-weaving, in Ireland 507
worked by machinery, history of 515
Louisville and Nashville Railroad: bonds in Holland 488
Lumber. (*See* Timber.)
Lyons: (*See* also France.) Silk products of 527

M.

Machinery: for linen manufactures in Europe 506
used in Bradford 516
for cleaning rice in Japan 565
manufacture of, in Germany 604
Malta: trade and commerce of 583

Page.

Manchester. (*See* British.)
Manufacture: of patent fuel in France 479
of starch in the Argentine Republic 529
of Austria finding markets 539
of pottery in Great Britain 541
industry in Russia 544
of fabrics in Italy 552
of Germany 559
of cotton in Germany 603
of machinery in Germany 604
Maple: bird-eye, import of, into Great Britain 480
Market: Antwerp, for American products 483
speculation in the grain 493
days in Great Britain, origin of 515
for Bradford woolens 520
for New Zealand wools 522
for agricultural implements, Japan 566
for American manufactures in Cape Town 574
Marriages: in Germany 498
Maryland tobacco: in Holland 591
Matches: manufacture of Russia 545
in Germany 604
Mayence. (*See* Germany.)
Meats: American, canned, in Germany 505
Merchant marine steamers: American steamers in Indian ocean 492
steamers at Malta 584
Merinos. (*See* Wools.)
Messina. (*See* Italy.)
Metals: import of, in China 570
Milan. (*See* Italy.)
Mining: diamond, in Cape Town 573
Monopoly: tobacco, proposed in Germany 581
tobacco, in Holland 589

N.

Nagasaki. (*See* Japan.)
Nantes. (*See* France.)
Navigation: of San Domingo 492
of British India 492
of New Chwang 570
of Malta 584
of Rouen 592
Netherlands: the. (*See* Holland.)
New Chwang. (*See* China.)
New Orleans: hogshead staves, prices of 481
New York: price of woolens in 521
steamship line from, to Amsterdam 646
New York, Lake Erie and Western Railroad: bonds in Holland 488
New Zealand: wools and wool trade of 522
watch and clock trade of 580
Notes: British Indian tariff 644
coffee of Brazil 644
coffee of Hayti 644
quicksilver in Hong-Kong 644

Page.
Notes: vintage of France, 1881 645
starch in Austria 645
cotton movement at Barcelona 645
steam communication between Amsterdam and New York 646

O.

Oak: (*See* Timber.) Export of American 480
Oars: price of, in Great Britain 480
Oil: mineral and vegetable, of Russia 546
bear's, fall in price of 575
castor, in China 570
sardine, in Bordeaux 570
olive, in Malta 587
Omnibuses: wanted in Cape Town 574
Opium: decrease of, in use, China 570
Orient: Austrian trade with the 535
Ostrich: farming in Cape Town 573

P.

Pacific Mail Steamship Company: samples of wool by 522
Packing: complaints against, by German consuls 505
Patent fuel: manufacture of 478
Paper: imported and exported at Trieste 359
mills of St. Petersburg 546–548
for wall, imported and made in Russia 547
hanging manufactories in Germany, pay-roll of the 559
Pitch: coal-tar, wanted 478
Petroleum: American, in Europe 483
tests in Germany 556
imports of, in Malta 586
Pine. (*See* Timber.)
Pitch: cost of, in Wales 478
American coal-tar, wanted 478
pine, in Liverpool 480
Plows: wanted in Japan 568
Capetown 574
Population: of Germany 598
Ports (*see also* Harbor) of Barcelona: cotton movement 645
Potteries of Staffordshire 541
Pork: American, in France 486
American, in Malta 586
Prices. (*See also* Labor.)
Prices: of manufacturing patent fuel 478
of American timber in Great Britain 478–482
of American products in Belgium 482–485
of American securities in Holland 488–491
of American grains 494
of Canadian products 496
of quicksilver in Germany 502
of flax-seed in Great Britain 507
of wools in Bradford 518
of woolens in Bradford and in New York 521
of wool of New Zealand 522
of freight transportation 524
of New Zealand wool 526

Page.
Prices: of shipbuilding at Leith 555
of food in Germany 557
of rice and rice culture in Japan 568
of coal in Italy 578
of olive oil in Malta 587
of living in Southern France 596
of Burgundy wine 602
Products: coal tar pitch of America wanted 478
timber of America in Liverpool 480
American, in Belgian markets 483
Canadian, and prices of 496
of quicksilver 502
flax, of Europe 506
wool, of New Zealand 522
silk, of Lyons 527
Austrian, in the Orient 535
Russian, development of 544
boracic acid, in Italy 551
rice, in Japan 565
of iron in Germany 580
of sugar in Germany 581

Q.

Quicksilver: in Europe, products and prices 501
in Hong-Kong 644
Quotations. (*See* Prices.)

R.

Rags. (*See* Paper.)
Rags: large export of, from Russia 546
Railroad: securities in Holland 488
ties in Canada 497
north British, ferry-boats for 554
Reports: from Amsterdam, by Consul Eckstein 482, 487, 589
Antwerp, by Consul Steuart 483
Auckland, by Consul Griffin 522, 530
Belfast, by Consul Wood 506
Bordeaux, by Consul Roosevelt 574
Bradford, by Consul Shepard 513
Bremen, by Consul Grinnell 556
Buenos Ayres, by Consul Baker 529
Calcutta, by Consul-General Mattson 492
Cape Town, by Consul Siler 573
Coaticook, by Consul Crawford 571
Cologne, by Consul Bullock 579
Dusseldorf, by Commercial Agent Wamer 559
Frankfort-on-the-Main, by Consul-General Vogeler 501, 556, 59g
Geestemunde, by Consul Canisius 499, 504
Leghorn, by Consul Rice 551
Leith, by Consul Leonard 553
Liverpool, by Consul Packard 479
Lyons, by Vice-Consul Peixotto 527, 602
Malta, by Vice-Consul Eynaud 583
Manchester, by Consul Shaw 561
Marseilles, by Consul Taylor 596
Mayence, by Commercial Agent Smith 493, 494, 578

Page.
Reports: from Messina, by Consul Owen 498
Milan, by Consul Crain 577
Munich, by Consul Spackman 603
Nagasaki, by Consul Jones 565
Nantes, by Commercial-Agent Gifford 477, 478
New Chwang, by Commercial-Agent Bandinel 569
Port Stanley, by Cmmercial-Agent Carroll 497
Prescott, by Consul Weaver 495
Rio Grande do Sul, by Vice-Consul Preller 588
Rouen, by Consul Rhodes 486, 592
San Domingo, by Consul Jones 491
Sonneberg, by Consul Wharton 601
St. Petersburg, by Consul-General Stanton 544, 548
Stuttgart, by Consul Catlin 593
Tahiti, by Consul Atwater 600
Trieste, by Consul Thayer 535
Tunstall, by Consul Lane 541
Vienna, by Consul-General Weaver 495
Wurtemberg. (*See* Stuttgart.)
Revenue. (*See* Finance.)
Rice: culture and cleaning 565
import of, in Malta 586
Rio Grande do Sul: harbor of 588
Rosin: demand for, in Belgium 484
American, no longer in Malta 587
Rotterdam. (*See* Holland.)
tobacco market of 592
Rouen. (*See* France.)
Rubber: goods, industry of Russia 546
Russia: manufacturing industries of 544
commerce of 548
Rye: American, in Europe 483

S.

Saltpeter: production of Russia 546
San Domingo: trade with America 491
Sardine: trade of Bordeaux 574
Seaport: Rences as a 692
Sewing-machines: American, wanted in Cape Towns 574
Securities (*see also* Finance): American, in Holland 487
Shearing: wool in New Zealand 523
Sheep: of Austria, census of 1880 645
Silk: product of Lyons, 1880 and 1881, compared 527
export trade of New Chwang 570
Ships and shipping: American, at San Domingo 492
American, in Indian Ocean, decadence of 492
American, at San Domingo 493
in Italian ports 499
British and American, compared 497
building, at Leith 553
at Malta 554
at Rouen, France 592
Soap: boiling industry in Russia 546
Spain: cotton movement 645
quicksilver of 501

Page.
Speculation in grain in the United States 493
Spindles: for flax-spinning in Europe 506
Spinning: flax in Ireland 506
by machinery considered 515
at Lardarello, Italy 552
cotton, in Germany 603
Staffordshire. (*See* German.)
Starch: manufacture in the Argentene Republic 529
Statistics: of United States railroad securities abroad 489
of United States shipping in India 493
of Austrian exports 495
of United States and British shipping 500
of United States and Spanish quicksilver 503
of British flax industries 506
of New Zealand wool shipments 523
of Lyons silk products 527
of New Zealand watch and clock trade 531
of Austrian trade 539
of British pottery industry 543
of Russian manufacturing industries 548
of German emigration 556
of German prices of living in Dusseldorf 560
of British trade in 1880-'81-'82 562
of German prices of living in Cologne 582
of shipping and trade of Malta 584
of tobacco of Java 591
of vitality of Germany 598
Staves: prices of, in Liverpool 481
Steamship: Pacific Mail Line to New Zealand 522
Austrian Lloyd, subsidy to and results of 535
lines to China and Brazil with Austria 538, 539
touching at Malta 587
between New York and Amsterdam 646
Stock: in Austria, census of 1880 645
St. Petersburg. (*See* Russia.)
Strikes: in the potteries of Staffordshire 542
Subsidy: to the Austrian Lloyd steamships 535
Sugar: trade of Trieste 539
industry in Germany 581
Sumatra: tobacco crop of 591
Swine: of Austria, census of, 1880 645

T.

Tahiti: trade and commerce of 600
Tar: pitch from coal dust wanted 478
production of, in Russia 547
Tallow: boiling, in Russia 547
Tax: on beet-roots in Germany 581
Tariff: rates, American 496
Canadian 497
Haytien 604
changes in, of British India 644
Timber: American, in Great Britain 479-482
Belgium 485

Page.
Timber: Russia, wealth of 546
American, no longer in Malta 587
Tobacco: exported from Russia to Finland 550
monopoly, proposed in Germany 581
American, at Malta 585
trade of the Netherlands 589
market for, in Munich 604
Tonnage. (*See* Shipping.)
Trieste: trade statistics of 539
Trade: in timber, American, at Liverpool 479
in American products in Belgium 483
in American pork in France 486
of San Domingo with America 491
grain, speculation in the 493
with Mayence 494
of Austria 495, 535
with Messina 498
in woolens 513
of New Zealand, watch and clock 530
of the Orient with Austria 535
of Russia, and value thereof 548
returns of Great Britain 561
rice of Japan 568
of New Chwang, 1881 569
cotton, of Canada 571
of Cape of Good Hope 573
sardine, of Bordeaux 574
of Cologne, Germany 579
of Malta 583
tobacco, of the Netherlands 589
wine, of Burgundy 602
Tunstall. (*See* British.)
Turpentine: demand for, in Belgium 484

U.

United States: coal-tar pitch wanted 478
timber trade at Liverpool 479
interest in Dutch claims 482
products and prices in Belgium 483
pork in France 486
securities in Holland 487
railroad bonds, prices in Holland 488
trade with San Domingo 491
shipping in Indian Ocean 492
grain speculation in the 493
exports of the, to Mayence 494
imports to the, from Austria 495
tariff of the, compared 496
trade of the, with Messina 498
and British shipping, compared 497
quicksilver of, in Europe 501
canned meat manufactured in the 505
imports of linens into the, from Great Britain 511
woolen manufactures, rapid growth in the 524
duties of the, on wool 525

Page.
United States: starch manufactured in ... 529
clocks and watches of the ... 531
trade of the, with the Orient ... 535
British and Canadian trade competition ... 572
immigrant into the, of tobacco manufactured ... 581
products of, in Malta ... 585
flag of, one seen at Malta in 1881 ... 587

V.

Values. (*See* Prices.)
Values: of Irish linens ... 509
of British exported manufacture ... 512
Vienna. (*See* Austria.)
Vintage: of France ... 645
Virginia tobacco: in the Netherlands ... 591
Vital statistics: of Germany ... 598

W.

Walnut. (*See* Timber.)
Walnut: import of, into Great Britain ... 480
Wages. (*See* Labor, also Prices.)
Wagons: market for, in Cape Town ... 574
Wants: American coal-tar pitch ... 478
American implements in Japan ... 566
American manufactures in Cape Town ... 574
Watch: and clock trade of New Zealand ... 530
Wax: consumption of, in Russia ... 547
Weaving: in Belfast ... 506
by machinery considered ... 515
at Lardarello, Italy ... 552
Wheat: American, in Belgium ... 483
flour, import of in Malta ... 586
Wine: trade of Burgundy ... 602
vintage of France, 1881 ... 645
Wood. (*See* Timber.)
Wool and woolens: industry of Great Britain ... 513
of the world ... 517
product of New Zealand ... 522
mixture of, with silk ... 527
trade of New Chwang, China ... 569
Wurtemberg: emigration from, to the United States ... 593

Y.

Yankee notions: wanted in Cape Town ... 574
Yarns: flax of Belfast ... 509
wool of Bradford ... 521
cotton of Manchester ... 562

Z.

Zinc: customs rate, in Hayti ... 639–643

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